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The Role of Cultural Climate, Racial Identity, and Mentoring Relationships on African American College Success

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THE ROLE OF CULTURAL CLIMATE, RACIAL IDENTITY, AND MENTORING RELATIONSHIPS ON AFRICAN AMERICAN COLLEGE SUCCESS

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ABSTRACT

African American undergraduate students face numerous challenges in higher education including adjusting to college-level work, a new environment, increased responsibilities, building new relationships, and experiences with discrimination. The dissertation study examined whether cultural climate, racial identity, and mentoring relationships predicted academic success for African American undergraduate sophomores attending four-year colleges and universities. The researcher analyzed these constructs using data from the 2012 national data set of the Multi-Institutional Study of Leadership (MSL) survey, an instrument containing over 400 items and scales measuring student demographic information, pre-college knowledge and experiences, college experiences, and educational outcomes. Results of a hierarchical multiple regression analysis revealed that cultural climate was the only significant predictor of GPA. This research has implications for higher education faculty and staff seeking to improve the academic achievement, retention and persistence of African American college students.

CHAPTER ONE

INTRODUCTION

Introductory Summary

Retaining African American students is a concern for many colleges and universities across the United States. African American students are less likely to enroll in and persist in college than White students (McKillip & Mackey, 2013; Perna, 2000; Ross, Kena, Rathbun, KewalRamani, Zhang, Kristapovich, & Manning, 2012). Many initiatives have been developed to address this issue include academic advising, multicultural programming, peer mentoring, and living-learning communities. We know how academic factors relate to retention but we do not know enough about other factors that are important in retaining African American students so that they persist and graduate from college. This dissertation study examines how psychological and environmental variables contribute to the academic success of African American college students.

Statement of the Problem and its Scope

Higher education is a topic discussed in various settings from the dinner table to the White House. It has been said that the progress of this nation will be determined by the education of its citizens. Unfortunately, our nation has a painful history educating its citizens. Education was not always a civil right for African Americans. Blood was shed and African American lives were lost to obtain the right to get an education and receive the same education as White people. The landmark, *Brown v Board of Education* (1954),

U.S. Supreme Court case declared separate public schools for African American and White children unconstitutional and paved the way for equal access to education regardless of race. Despite changes in law granting access to higher education, there are many barriers that exist for African American students.

Tuition costs have increased as much as 21% beyond the rate of inflation in the last ten years (The College Board, 2015). According to aggregated data from 2001-2015 Gallup Economy and Personal Finance polls, more U.S. parents with children under age 18 worry about how they will pay for their children's college education than other Americans worry about any common financial concerns (Jones, 2015). In addition to potential financial barriers, first-generation college students face additional concerns such as a lack of understanding from family and friends. For this study, first-generation college students are those students whose parents have never enrolled in post-secondary education (Pascarella, Pierson, Wolniak, & Terenzini, 2004). Compared to students whose parents are college graduates, first-generation students are more likely to be Black or Hispanic and to come from low-income families putting them at risk for potentially not completing their college degree (Ishitani, 2003; NCES, 2005; Nuñez & Cuccaro-Alamin, 1998). Furthermore, for students of color who are attending predominantly White institutions (PWIs), their racial or ethnic identity development combined with feeling a sense of community and cultural appreciation from the institution may impact their connection to that institution. PWIs are institutions of higher learning in which White students account for 50% or greater of the student enrollment (Brown & Dancy, 2013). These environmental, social, cultural, and psychological factors can all have an impact on the retention and persistence of college students, particularly students of color. Although

academic ability is integral to college success, this study focused on non-academic variables contributing to the academic success of African American students.

Although the numbers are increasing for people to attend college, African American students are continually underrepresented in higher education. Furthermore, the college-going rates are higher for African American women compared to African American men (NCES, 2011). This underrepresentation of African American college students has implications for future financial earnings. On average, a person who earns a bachelor's degree earns nearly twice as much over their lifetime than a person who has only earned a high school diploma (The College Board, 2015). Most jobs now require some type of post-secondary education. If African Americans are underrepresented in higher education, which is often equated with economic mobility, this has negative implications for employment stability and could potentially have long-term effects on their ability to support themselves and their families. Additionally, unemployment and underemployment often contribute to chronic stress, depression, anxiety, and low self-esteem (Goldsmith & Diette, 2012).

Theories on Academic Success and College Retention

There are several theories of success and retention that are currently used to explain why students persist or leave college. Voigt and Hundrieser (2008) defined student success as a student's persistence toward completion of his or her educational goals. Retention is typically reported by institutions as freshman-to-sophomore retention rates, year-by-year retention or persistence rates, and cohort graduation rates (Voigt & Hundrieser, 2008). Astin's (1985) Theory of Student Involvement and Tinto's (1993) Theory of Departure, which are widely used retention models in higher education,

emphasize the importance and quality of academic and student involvement into the college community as indicators of student persistence (Astin, 1985, 1977, 1993; Center for the Study of College Student Retention (CSCSR), n.d.; Tinto, 1975, 1993). Tinto (1993) explains that the first principle in facilitating student success is the institution's commitment to the student. Pascarella and Terenzini (1991, 1998) synthesized over 2,600 studies from 1968 to 1988 on the impact of college on students. Their analysis provided evidence that active student involvement is central in student learning and development (Pascarella & Terenzini, 1991, 1998). Historically, retention and attrition research also suggests that student personality attributes, interactions between student characteristics and campus environment, environmental factors, and colleges of greater size and complexity impact retention and persistence (Bean & Metzner, 1985; CSCSR, n.d.; Kamens, 1971, 1974; Spady, 1971; Summerskill, 1962). Based on a review of the literature "retention must be viewed as an ongoing, campuswide responsibility requiring everyone's participation and contributions" (Voigt & Hundrieser, 2005, p. 8) and involves "satisfied students and alumni; competent caring faculty and staff; and, concerned/aware administration" (Levitz, 2001; Noel, Levitz, & Saluri, 1985; Voigt & Hundrieser, 2005, p. 8). Although there are several models to explain retention that integrate academic, social and psychological factors, research also shows that college GPA is a significant predictor of college success and GPA has a direct effect on attrition (Kern, Fagley, & Miller, 1998). Furthermore, research suggests that college success is related to academic and non-academic factors and that GPA is one contributor to retention (Lotkowski, Robbins, & Noeth, 2004).

Widely used retention models have been criticized for not incorporating psychological variables specific to African American students. Tracey and Sedlacek (1984) computed a factor analysis which led to the identification of eight non-cognitive factors associated with academic achievement for African American college students. These factors include the ability to establish communities, the ability to understand and deal with racism, academic positive self-concept, realistic self-appraisal, support of academic plans, setting long-range goals, academic familiarity and interests, and successful leadership experiences. Other researchers have criticized retention models for a lack of an institution-centric theory for Black college student success and propose an HBCU-based theoretical model that is relevant for all institutions of higher education that educate Black students (Arroyo & Gasman, 2014). Although research supports various factors that contribute to the retention of African American students that are academic and non-academic in nature, few have collectively examined many of these variables in relation to academic achievement. The Multi-Institutional Study of Leadership Survey (MSL) (Dugan & Associates 2012), which is an internationally used instrument whose purpose is to assess for college student involvement and leadership outcomes, captures many of the variables that are associated with African American retention and academic achievement. Utilizing the findings from previous research, the current study used the MSL (Dugan & Associates, 2012) to examine how mentoring, which often encompasses a support of academic plans and helps establish a sense of community, a positive cultural climate, which also helps to establish a connection to one's university, and one's racial esteem toward their African American identity, relate to college success.

Cultural Climate

Many Black students experience a lack of belonging to their institution, particularly if they attend PWIs. Feeling a sense of belonging to their particular college is likely to impact their connection to that institution. According to research, students of color are less likely to assimilate to college life if they perceive the college as not supportive of their cultural heritage or if they perceive the campus climate as lacking tolerance toward their social group (Merisotis & McCarthy, 2005). Historically Black Colleges and Universities (HBCUs) are institutions of higher education that were established prior to 1964 and were designed to educate African American people (National Center for Education Statistics [NCES], 2012). In 2007, 11% of Black college students were enrolled in HBCUs (NCES, 2012). Studies have shown that African American students view HBCUs as supportive and experience a sense of family and brotherhood (Jett, 2013). According to Pascarella and Terenzini (1991), African American students are more likely to complete a bachelor's degree and have better experiences at HBCUs. Even though attending an HBCU is a viable option for Black students, the percentage of Black college students that enroll at HBCUs has fallen from 18% in 1976 to 9% in 2011 (National Center for Education Statistics [NCES], 2012), indicating a need for PWIs to provide support to this population. Nasim, Roberts, Harrell, and Young (2005) suggest that students of color are more likely to remain on campus if PWIs change admissions policies, institutional climate, and hire more African Americans in senior administrative and tenure-track positions to increase opportunities for Black students to speak to academic support staff about the African American experience.

Other research has found that a diverse and supportive campus environment is important for African American student satisfaction regardless of whether they attend HBCUs or PWIs (Chen, Ingram, & Davis, 2014). Kim (2006) examined a national longitudinal data set of 941 African American freshmen to study the impact of HBCUs and PWIs on African American student development. Kim found that African Americans had a similar chance of graduating with a bachelor's degree whether they attended an HBCU or PWI. In an earlier study, Kim (2002) analyzed the effectiveness of HBCUs versus PWIs in developing the academic, writing, and math abilities of African American students. In this study, Kim used a national longitudinal data set of 1,069 African American freshmen attending 10 HBCUs and 71 PWIs. Kim's study found that there were no differences in academic and cognitive abilities, suggesting that African American students can benefit in their academic development regardless of the type of institution they attend (Kim, 2002). This suggests that factors other than academic support contribute to retention at PWIs.

Other research has found that a negative perception of campus climate may contribute to the low rates of success among minority groups (Edman & Brazil, 2008; Gloria, Hird, & Navarro, 2001). A number of studies suggest that African Americans have more negative descriptions of campus life that include perceptions of discrimination (Ancis, Sedlacek, & Mohr, 2000; Gossett, Cuyjet & Cockriel, 1998; Parker 1998; Suarez-Balcazar, Orellana-Damacela, Portillo, Rowan, & Andrews-Guillen, 2003). Although experiences of discrimination can impact a student's perceptions of his or her campus, other studies show that positive relationships with faculty and peers contribute to a sense of belonging (Brown, Morning, & Watkins, 2005; Edman & Brazil, 2008). At PWIs,

availability of academic support, ability to understand and deal with racism, and humanist attitudes were the most reliable predictors of academic achievement (Nasim et al., 2005). This research also implies that opportunities to discuss the African American experience with others are an important aspect of cultural climate. These discussions can be determined as socio-cultural discussions which are based in sociocultural theory. Sociocultural theory emphasizes the interdependence between individual and social processes in the co-construction of knowledge (John-Steiner & Mahn, 1996). Therefore, socio-cultural discussions provide students with an opportunity to understand and share ones own culture and values as well as the culture and values of others within a larger social context.

Much of the literature on African American academic achievement and retention focuses on differences among variables between students who attend PWIs compared to those who attend HBCUs. There is limited research on similar predictors of academic achievement for Black students regardless of the type of institution they attend. This does not negate the importance of examining cultural climate for African American students. As research suggests, it is important to consider psychological and cultural variables when studying academic achievement for this population (Nasim et al., 2005). In addition to considering the importance of cultural climate for African American students, research suggests that it is also important to examine the role of the student's racial identity development as this takes into account how their psychological experience impacts academic achievement (Awad, 2007; Chavous et al., 2003).

Racial Identity Development

Another variable to consider when studying African American college success is the influence of one's racial identity, which along with cultural climate, is an important cultural variable and also a psychological variable. Racial identity is based on the perception of a shared racial history and reflects the identification with one's racial group (Helms, 1990; Phinney & Kohatsu, 1997). Helms (1990) defines racial identity as one's sense of identification to a collective group based on the perception that there is a shared cultural heritage (Cook, 1994, p. 132). Rodgers and Summers (2008) examined the role of racial and ethnic identity in retention models for African American college students. Similar to racial identity, ethnic identity is the part of one's self-concept developed from one's membership in a particular ethnic group together with the value and emotional significance attached to one's ethnic group (Phinney, 1992). Furthermore, it involves the ethnic label that one chooses and may differ from one's ethnicity which is based on parental heritage (Phinney, 1992).

Ethnic identity is often used interchangeably with racial identity particular when describing those who identify as African American (Phinney, 1992; Rodgers & Summers, 2008; Sellers, Smith, Shelton, Rowley, & Chavous, 1998) and captures a general categorization of those who may have ethnic origins in different countries (i.e., Haiti, Jamaica, U.S., etc.). According to Rodgers and Summers' (2008) review of the literature, stronger ethnic identity, has been connected to a variety of positive outcomes including higher self-efficacy for academic achievement for several racial/ethnic groups, including African American college students. Research suggests that racial centrality (the extent to which a person defines him- or herself with regard to race) and racial ideology (the

meaning the individual ascribes to being Black) are significantly related to African American college students' cumulative GPA (Sellers, Chavous, & Cooke, 1998). Additionally, research suggests that college students who view race as central to their lives feel positively about being Black and those who think others feel positively about Blacks had more positive academic beliefs (Chavous et al., 2003). Other studies suggest that students who are high in racial centrality or students who deemphasize race have lower academic achievement (Sellers, Chavous, & Cooke, 1998).

Chavous et al. (2003) found that high identity salience as well as an awareness of societal discrimination was related to positive academic outcomes among African American students. Several other studies have examined racial identity and other noncognitive variables in high school and college populations suggesting that racial identity is an important factor to consider when studying academic achievement and retention for African American college students (Awad, 2007; Witherspoon, Speight & Thomas, 1997). Awad (2007) studied the role of racial identity, academic self-concept and self-esteem on academic performance for African American college students and found that academic self-concept was the best predictor of GPA, and not racial identity as found in previous studies. Awad suggested however, that the insignificant relationship between racial identity and GPA may have been due to more academically salient variables and the use of a different measure to capture racial identity. In spite of this finding, prior research suggests that racial identity is a significant consideration for African American college retention (Rodgers & Summers, 2008).

In addition to a direct relationship to academic achievement, racial identity impacts psychological outcomes that in turn impact academic outcomes. According to

several theorists (Luhtanen & Crocker, 1992; Phinney, 1992; Tajfel, 1974), racial identity can be defined as a social identity. Sometimes, one's social identity, and in the context of African American students, one's racial identity, in academic situations is vulnerable to stereotype threat (Steele & Aaronson, 1995). Stereotype threat is defined as being "at risk of confirming, as self-characteristic, a negative stereotype about one's group" (p. 797). When one's social identity becomes vulnerable to stereotype threat, individuals may feel pressured to leave or disassociate with their group (Tajfel, 1974). Crocker, Luhtanen, Blaine and Broadnax (1994) have conceptualized collective self-esteem as a component of self-esteem which derives from one's knowledge of memberships in a social group (or groups) together with the attached value and emotional significance. Collective self-esteem may reduce the negative effects of the endorsement and possible internalization of negative stereotypes. Studies have found that collective self-esteem has an inverse relationship with negative mental health outcomes and that it moderated the relationship between perceived discrimination and distress outcomes of depression, anxiety, and somatization in college women (Corning, 2002; Fischer, 2007). Research highlights the importance of collective self-esteem on psychological health, an important factor in academic achievement (Huynh & Fuligni, 2010).

Similar to racial identity, collective self-esteem accounts for one's sense of worthiness to their social group (membership esteem), one's judgement of their social group (private collective esteem), one's judgment of how others perceive their social group (public collective esteem), and the importance of one's social group to their identity (Luhtanen & Crocker, 1992). Luhtanen and Crocker identified race as a social group in the development of their Collective Self-Esteem Scale (CSES). In the current

dissertation study, racial identity is measured as collective racial esteem, which is defined as the generalized tendency to rate one's racial identity positively and takes into account the collective aspects of one's self-concept (Luhtanen & Crocker; 1992). Collective racial esteem has been used as a measure of racial identity to examine its relationship to involvement behaviors of African American male undergraduate students, differences among racial groups in leadership development, and its relationship to leadership efficacy among Asian American college students (Anthony, 2010; Dugan, Kodama, & Gebhardt, 2012; Lee, 2011).

Mentoring Relationships

According to Strayhorn and Terrell (2007), mentoring fosters student academic and social involvement. Several studies find that mentoring relationships with faculty, staff and peers have a significant impact on college students. According to Tinto's Theory of Departure (1975), students are more likely to remain in college if they feel socially connected to their institution. One way to achieve social connection is through mentoring relationships. A meta-analysis of 15,000 research articles on mentoring relationships found that mentoring is associated with a wide range of favorable behavioral, attitudinal, health-related, relational, motivational, and career outcomes and is a way to improve the academic adjustment, retention, and success of college students (Eby, Allen, Evans, Ng, & DuBois, 2008). One study found that meaningful, research-focused mentoring relationships with faculty members had a positive relationship with Black students' satisfaction with college (Strayhorn & Terrell, 2007). Another study that surveyed one thousand students attending HBCUs, found that more than any other

institutional characteristic, frequent interaction with faculty was related to student satisfaction with college (Hutto & Fenwick, 2003; Merisotis & McCarthy, 2005).

Other studies on mentoring of Black college students focus on the cultural competence of non-African American faculty and staff, suggesting the importance of providing culturally sensitive support and guidance to this population which is assumed to have an impact on a student's perceptions of the cultural climate of their university. Research has also shown that perceptions of cultural climate and social support are linked to academic success (Edman & Brazil, 2008). Furthermore, academic success has been linked to a sense of belonging (Edman & Brazil, 2008; Thompson, Orr, Thompson, & Grover, 2007). According to Edman and Brazil (2008), research shows that a student's perception of social support among peers and faculty has been found to be associated with a sense of campus belonging and academic success including persistence and GPA. Another study found, however that a positive view of the campus climate and strong academic confidence did not translate into academic success for African American college students (Edman & Brazil, 2008). Although mentoring has been shown to have a positive impact on academic performance, there are no studies examining the relationship between mentoring relationships, cultural climate and racial identity on the academic performance of African American college students. In this study, mentoring is defined as the frequency of contact with someone whom the student self-identifies as having a significant impact on their growth or development while attending college (Dugan & Associates, 2012). Based on previous research findings regarding the importance of mentoring, one might assume that a student who has frequent contact with a mentor or

mentors who is enhancing their growth or development may perform better academically than someone who does not have this type of support.

Parent's Educational Attainment

Ninety-four percent of parents of children 17 years old or younger expect that their child will attend college (Pew Research Center, 2012). This is regardless of the parent's highest level of education. There are numerous challenges that first-generation students experience such as a lack of understanding from family members and friends, a general lack of information about college, and financing college. Financial worries can be burdensome and negatively impact academic performance.

Although research is conflicting, parent's educational attainment is correlated with retention. First-generation college students have a higher risk of attrition (Nuñez & Cuccaro-Alamin, 1998) and a higher risk of departure during freshman year (Ishitani, 2003). Students whose parents have never attended college are more likely to come from a lower socioeconomic status than their college peers whose parents attended college. According to the Pell Institute (2005), 31% of students from low-income backgrounds go on to attend some form of postsecondary education as compared to 56% of middle-income and 75% of high-income students. In the 2007-2008 academic year over 80% of full-time college students received financial aid and African American students had the highest percentage of recipients (92%) (Aud, Fox, & KewalRamani, 2010). In this study, parental educational attainment is defined as the highest level of education obtained by any parent or guardian of the student. There is limited research on the relationship between parental educational attainment for African American students and academic achievement. Furthermore, there are no studies examining the relationship between

mentoring, cultural climate, racial identity and GPA when considering parental educational attainment. This study examines whether there are similarities among the study variables to GPA regardless of their parental educational attainment.

Grade Point Average

Research on college retention shows that high school GPA, ACT scores, and socioeconomic status (SES) are strong predictors of college GPA (Lotkowski, Robbins, & Noeth, 2004). Research also shows that once a student enters college, their college GPA is the best predictor of retention and persistence for the following year (Allen, Robbins, Casillas, & Oh, 2008; Pascarella & Terenzini, 2005). Furthermore, first-year GPA has been found to be a significant predictor of retention in several studies (Allen, 1999; Mitchel, Goldman, & Smith; 1999; Murtaugh, Burns, & Schuster, 1999; Reason, 2009). As research has been cited, there is evidence to suggest that there may be other significant predictors of academic achievement for African American students that includes racial identity development, mentoring relationships and cultural climate. The purpose of this study is to collectively examine cultural climate, mentoring relationships and racial identity and their relationship with GPA as an indicator of academic performance with implications for retention (student's full-time re-enrollment at their college or university the following fall semester), persistence (continued progress toward degree attainment), and attrition (failure to re-enroll in a particular college or university).

Based on previous research, racial identity, mentoring relationships, and cultural climate may have a more significant impact on academic performance than parental educational attainment; however there is not enough research to support those findings. Furthermore, there is minimal research, specifically, on within-group similarities among

African American students and academic performance regardless of parent's educational attainment. The dissertation study hoped to identify the relationship between racial identity, mentoring relationships, and environmental variables and academic performance for African American students regardless of their parent's educational attainment or gender.

Rationale and Importance of Doing the Study

The rationale and importance of this study is to provide higher education faculty and staff with information on the relationship between cultural climate, racial identity, and mentoring relationships on African American achievement which is related to retention and persistence. There is a gap in the literature in how we understand college retention for African Americans utilizing academic and psychological variables. Furthermore, there is a need to examine social, psychological, and environmental factors as this provides a holistic approach to understanding academic achievement beyond academic-related skills. The researcher hopes that higher education institutions use the research in this study to inform them in how they may approach retention and persistence programming and interventions as well as academic achievement for African American college students. Similarly, the researcher would like counseling and psychology staff to consider the study results as they provide culturally-sensitive psychological interventions to African American college students.

Objective of the Study

The objective of this study was to examine the relationship between racial identity development, cultural climate, mentoring and GPA which is a predictor of retention. The research identified the significance of these variables to GPA and whether they

collectively accounted for additional variance in their relationship to GPA. The assumption was that a perception of a campus cultural climate where diversity is appreciated and socio-cultural discussions are encouraged, frequent contact with a mentor(s) who a student identifies as having a significant influence on their growth and development, and a positive connection to one's African American racial identity will influence a student's academic performance which will likely contribute to academic retention and persistence in college.

Research Questions and Hypotheses

The research questions for the study are as follows:

1. What is the influence of cultural climate, including experiences of discrimination and sociocultural discussions, collective racial esteem, and mentoring relationships on African American undergraduate GPA?
2. If there is a relationship between the independent variables and GPA, does collective racial esteem mediate the relationship between cultural climate and academic achievement?
3. How similar is the relationship among these variables for African American undergraduate students when accounting for parent's educational attainment?
4. How similar is the relationship among these variables for African American undergraduate students when accounting for gender identity?

To carry out the objective of the study the following hypotheses were tested:

1. There is a relationship between cultural climate, including experiences with discrimination and socio-cultural discussions, collective racial esteem and the

frequency of mentoring relationships on African American college success as measured by GPA.

2. A warm and welcoming cultural climate increases a person's collective racial esteem, and that increased collective racial esteem increases academic performance.
3. There are similarities among these three variables and their relationship to GPA for African American college students regardless of their parent's educational attainment because of shared racial group membership.
4. There are similarities among these three variables and their relationship to GPA for African American college students regardless of gender because of shared racial group membership.

CHAPTER TWO

REVIEW OF THE LITERATURE

This chapter will provide a review of the literature on African American college student achievement and retention. As stated in Chapter One, there are several factors that may impact an African American student's retention at a particular university. This study specifically focuses on academic achievement as one of those factors as it is one of the determinants of retention. The variables that impact academic achievement may be specific to the individual student, the availability of support and/or the institution they attend. Further examination of the study variables; cultural climate, mentoring and racial identity development, will be discussed in the context of African American college student achievement. More specifically, the academic achievement of African Americans attending four-year colleges and universities will be discussed. The chapter will also examine the role of parental educational attainment and gender in African American college student academic achievement. Lastly, the theoretical framework for the study will be addressed.

African American College Student Achievement

When examining retention and persistence, higher education literature tends to focus on academic, environmental, and social factors, while psychology literature focuses on psychological, environmental, and social variables. There is a need to integrate the research in order to meet the holistic needs of African American students. Most, if not all, institutions of higher education are concerned about the retention of their students,

and many of those institutions are equally concerned about the needs of African American students. It is common practice for PWIs to have programs geared toward supporting African American students either through academic departments dedicated to meeting the needs of students of color or through social groups, such as Black Greek Letter organizations and cultural centers. Furthermore, psychological research emphasizes the importance of counselors providing multiculturally competent therapeutic interventions and outreach programs (Amed, Wilson, Henriksen, & Jones, 2011; Sue, Arredondo, & McDavis, 1994; Sue & Sue, 2007). This collective effort of institutions to address the needs of students of color highlights the significance of retaining African American students.

The experiences of African American college students are as diverse as the individual students. Although diverse, there are some common universals that exist for this racial group. For example, anyone who identifies as African American directly or indirectly shares the history of slavery in the United States as well as other types of oppression (Samford, 1996). One such historical oppressive experience was being denied entry into White colleges and universities. Although, HBCUs were built specifically for African Americans, laws were passed banning segregation. Many African Americans eventually attended PWIs in addition to HBCUs. Many of the first African American students to attend PWIs experienced numerous acts of racism. For example, James Meredith, the first African American student admitted to the University of Mississippi in 1962, experienced violence while trying to attend his first day of classes (Biography.com, n.d.). The history of integrating schools was not only significant in higher education but in elementary and high schools across the United States. In 1957, the "Little Rock Nine"

were the first group of African American students to integrate a White high school in Little Rock, Arkansas after the Brown vs. Board of Education (1954) case decision to integrate public schools (Little Rock Nine Foundation, 2011). Although these events occurred over 50 years ago, the experiences have not been forgotten. Unfortunately, many African American college students still face racial discrimination and differential treatment on their campuses (Ancis, Sedlacek, & Mohr, 2000; Suarez-Balcazar et al., 2003).

There are several statistics highlighting the status of African Americans in higher education. From 1998-2009, the percentage of African Americans that earned associate's degrees increased by 77% and increased by 53% for those that earned bachelor's degrees (NCES, 2011). According to Arnold (1999), college freshmen and sophomores have the lowest retention rates compared to juniors and seniors. This has significant implications for African American students who are historically and continually underrepresented in higher education. Only 10% of college graduates in the 2008-2009 academic year were African American compared to 71% of White graduates (NCES, 2011). Women outnumber men in college across all racial/ethnic groups. However, African Americans have the largest disparity between men and women earning bachelor's degrees. In the 2008-2009 school year, only one-third of the African Americans who earned bachelor's degrees were men (NCES, 2011). Although these statistics show promise for African American women college students, it also highlights the disparity between this population and African American men who are college students.

Although many African Americans share a common history, they may not share a common background. African American college students represent various

socioeconomic statuses (SES), family structures, and family educational attainment in addition to various academic experiences. Because of the diversity among African American students, the shared history of oppression and their underrepresentation in higher education serve as a catalyst to identify common environment, social, and psychological factors that may contribute to this population's academic achievement and persistence in higher education. Several studies have been conducted identifying academic and non-academic factors contributing to the success of African American college students, particularly at PWIs. Although research shows that high school grade point average (GPA) is a predictor of first-year college GPA (Lotkowski, Robbins, & Noeth, 2004) and that first-year college GPA is a predictor of college retention (Reason, 2009), there is a need to further examine the influence of non-academic predictors of academic achievement for African American college students. This chapter merges the psychology and higher education literature to provide a context for psychologists, counselors, and higher education faculty and staff working with African American college students. In Chapter Five, suggestions for higher education administration seeking to increase the academic performance and retention of African Americans on their campuses will be provided.

There is continued debate on how to measure retention. According to the National Center for Education Statistics (NCES) (n.d.), retention rate is a measure of the rate at which students persist in their educational program at an institution, expressed as a percentage. At four-year institutions, this is the percentage of first-time bachelor's degree-seeking undergraduates from the previous fall who are again enrolled in the current fall. Persistence indicates a student's continuation behavior toward graduation

and preparedness for graduate studies and/or employment. College academic achievement is typically measured using GPA. Although a student's GPA does not guarantee retention at a particular university, it is an indicator of retention as most students are required to maintain a minimum GPA to graduate. Furthermore, GPA requirements are common for maintaining academic scholarships, which may be a significant source of financial aid.

There has been significant research in higher education regarding the retention of all college students, and more specifically, African American students. Research shows that the greater the involvement in social and academic experiences; the more likely students are to persist (Tinto, 1997). According to Tinto's Theory of Student Departure (1993), to persist, students need integration into formal (academic performance) and informal (faculty/staff interactions) academic systems and formal (extracurricular activities) and informal (peer-group interactions) social systems. Although Tinto's model has been widely used to describe retention it has been criticized for not taking into account cultural variables such as parental roles and community commitment and places too much emphasis on the need for students to adapt to the college environment (Guiffrida, 2006). This criticism speaks to the cultural concerns of many African American students, particularly those attending PWIs. Although these concerns exist, Fischer (2007) found that involvement in formal campus activities during the first two years leads to greater academic success, college satisfaction levels, and retention rates among students of different racial/ethnic backgrounds and majors. As stated in Chapter One, early retention research on African Americans college students identified eight non-cognitive factors (i.e., psychosocial variables) that have been posited to reliably predict

their academic success (Nasim et al., 2005; Tracey & Sedlacek, 1984). These factors proposed by Tracey and Sedlacek are academic positive self-concept, realistic self-appraisal, support of academic plans, the ability to understand and deal with racism, setting long-range goals, academic familiarity and interest, ability to establish community ties, and successful leadership experiences. Although there are differences in the findings, the research highlights the importance of the beginning years of college, the college environment including dealing with racism, academic and community support, and campus involvement in Black college student achievement.

Most often, research examining the retention of African American college students is in the context of HBCUs vs. PWIs. There are 100 HBCUs in 19 states, the District of Columbia, and the U.S. Virgin Islands, accounting for 3% of the nation's institutions of higher education (NCES, 2013). Given their historical significance, HBCU continue to have a positive impact on the lives of many African American college students, however, there has been a decline in African American college enrollment at HBCUs from 18% in 1976 to 9% in 2011 (NCES, 2013). Also declining is the percentage of degrees conferred from HBCUs to all African American students earning bachelor's degrees. From 1976-1977, HBCUs conferred 35% of bachelor's degrees awarded to African American students, compared to 16% from 2010-2011 (NCES, 2013). Although, more African Americans are enrolled at and receive bachelor's degrees from PWIs, HBCUs continue to remain relevant, seeing a 45% increase in enrollment from 1976 to 2011 (NCES, 2013). Studies examining social, environmental and psychological variables on the academic achievement of students at HBCUs and PWIs have found that African American students attending HBCUs are more likely to have mentors of color

who are faculty and staff than students attending PWIs and feel a sense of belonging to their college campus. However, research has found that mentoring can have a significant impact on the academic achievement of African American students regardless of the race of the mentor. Furthermore, African American students attending PWIs can experience a sense of belonging and acceptance if they can either deal with racism or if they infrequently experience discrimination. Besides differences between PWIs and HBCUs, there are other institutional characteristics that are not typically considered in the context of African American student achievement when examining social, psychological and environmental variables. These characteristics include the size of the institution, the location, whether an institution is private or public, and whether or not it has a religious affiliation. The studies that have examined these institutional characteristics in the context of race have found that African Americans have similar academic achievement and retention rates regardless of the type of institution they attend. One interesting finding, however, is that African Americans have higher rates of enrollment at for-profit institutions. It is important to consider similar predictors of academic achievement regardless of institution because of the variety of institutions available for students to attend. The study assumes that cultural climate, mentoring, and racial identity may impact academic achievement for Black students regardless of institutional characteristics.

Cultural Climate

According to Chavous (2005), "studying the climate of an institution provides insight into the culture of a setting, by examining the beliefs, attitudes, values, and expectations shared by members of the institution that are sustained over time" (pp .239-

240). Adjusting to the college environment is a period of transition for all students. For many, this is their first experience interacting with people of different races, ethnicities, nationalities, religions, political views, and socioeconomic backgrounds. Unfortunately, many African Americans college students report more negative perceptions of their campus cultural climate due to racial-ethnic hostility, less equitable treatment from faculty and staff, and greater pressure to conform to stereotypes (Ancis et al., 2000). A negative perception of one's campus cultural climate has implications for adversely influencing psychological health and academic achievement (Ancis et al., 2000). Chavous (2000) characterizes the relationship between African Americans and the cultural climate of academic institutions as perceived fit. This section will discuss the literature regarding the significance of campus cultural climate for African American college students. The researcher will discuss how a sense of belonging, racial discrimination, and opportunities for sociocultural discussions (conversations with peers about and across differences) (Dugan, Kodama, & Gebhardt, 2012) contribute to cultural climate and how these variables are analyzed in the literature as it relates to the academic achievement of African American students. In addition to a discussion of the research, a critique of the literature and the data analyses will be discussed.

Sense of Belonging

Sense of belonging can be defined as the psychological sense that one is a valued member of the college community (Hausmann, Schofield, & Woods, 2007; Hurtado & Carter, 1997). Research shows that experiencing a sense of belonging to one's college campus has a positive impact on academic performance and GPA for African American students (Hausmann, Ye, Schofield, & Woods, 2009; Walton & Cohen, 2007). For

African American students, a sense of belonging is often influenced by the campus racial climate (Johnson et al., 2007). Based on these findings, this dissertation purports that it is important to consider sense of belonging as part of the cultural context of campus climate and its influence on academic performance for African American students.

Influenced by Hurtado and Carter's (1997) research on Latino students, Johnson et al. (2007) examined sense of belonging in a sample of 2,967 first-year undergraduate students representing different racial and ethnic groups. The participants were from 34 PWIs from 24 states. The majority of the institutions that participated were large, public flagship universities (Johnson et al., 2007). The racial/ethnic groups represented in the study were African American, Asian/Pacific American, Hispanic/Latino, Multiracial/ Multiethnic, and Caucasian/White. The sample was drawn from students that took the National Study of Living-Learning Programs (NSLLP) in 2004.

Johnson et al. (2007) used a hierarchical regression analysis conceptualized using Astin's (1993) Input-Environment-Outcome (I-E-O) model with sense of belonging as the dependent variable. The first block contained demographic variables (gender, SES, high school grades), the second block contained structural characteristics of the college environment and student involvements with their current environment (institutional selectivity), the third block contained living-learning participation, the fourth block contained college environments (i.e., perceptions of the residence hall environment, interactions with faculty), the fifth block contained student perceptions of the transition to college (academic and social), and the sixth block contained student perceptions of the campus racial climate (interactions with diverse peers and perceptions of the campus racial climate) (Johnson et al., 2007). The researchers first analyzed for racial group

difference in sense of belonging using analysis of variance (ANOVA), then conducted separate hierarchical regression analyses for each racial group. For African American students, perceptions of a socially supportive residence hall were a significant predictor of sense of belonging. The measure "residence hall is socially supportive" included students' perceptions that various aspects of diversity were appreciated including race/ ethnicity, religion, and sexual orientation (Johnson et al., 2007). A smooth social transition to college was also a significant predictor of sense of belonging for African American students. For the last block, perceptions of a positive racial climate, was also a significant predictor of sense of belonging for African American students. It is important to note that of all racial/ethnic groups represented in the study, African American students were the least likely to report positive perceptions of the racial climate (Johnson et al., 2007).

The results of the Johnson et al. (2007) study, highlights the significance of campus racial climate and its impact on sense of belonging for African American students. Additionally, for African American students a sense of belonging and a positive racial climate are interrelated. Although these findings are significant, one limitation is that the data was collected prior to the end of the students' first year of college (Johnson et al., 2007). The first year of college is typically a transitional year and the data collected may not fully capture stability in the variables measured. Another limitation, although not the purpose of the study, is that it doesn't measure how a sense of belonging impacts academic performance when measured by GPA.

Hausmann, Schofield, and Woods (2007) also studied sense of belonging in their research on predictors of college persistence intentions among African American first-

year college students. Hausmann, Schofield, and Woods examined predictors of sense of belonging, the effects of a sense of belonging intervention, and whether sense of belonging enhanced institutional commitment. This mixed methods longitudinal study included a sample of full-time first-year non-transfer students who attended a large public mid-Atlantic university and were asked to complete a three-wave survey. The total sample of African American students was 145 and the total sample of White students was 220. Any student who completed at least one survey was included in the analysis. The mean age of the sample was 18 and 60% of the sample was female. Of the African American respondents, 68% were female compared to 55% female for the White student sample. Participants completed a survey containing measures of financial difficulties, social and academic integration, peer and parental support, sense of belonging, institutional commitment, and intentions to persist at the beginning of their first semester and at the beginning and end of their second semester (Hausmann, Schofield, & Woods, 2007). Additionally participants were randomly assigned to an enhanced sense of belonging group or one of two control groups. The students who were assigned to the enhanced sense of belonging group received small gifts (i.e., decals) representing the university as well as written correspondence from university administrators (i.e., Provost) emphasizing that they were valued members of the university community. One of the control groups did not receive any written correspondence but received gifts; however, they did not contain any university insignia. The other control group did not receive any written correspondence or gifts.

The researchers used several analysis techniques. The first was a multilevel model for change (MMC) to group data for the same individuals across time. Next they

used unconditional means models (UMM) and unconditional growth models (UGM) to estimate the best model to analyze the predictors on sense of belonging. In their analyses they controlled for background variables (race, gender, financial difficulty, SAT) and other common predictors of persistence (academic integration, family support, peer support, faculty interactions, peer interactions). An important finding of the study specifically for African American students was the importance of peer support. For this population, as their peer support increased over time so did their sense of belonging. Additionally, for African American students, parental support was significant to a sense of belonging in the beginning of the school year. For both African American and Caucasian students, the study found that having above average academic integration was associated with increased sense of belonging over time (Hausmann, Schofield, & Woods, 2007). Furthermore, for both racial groups, sense of belonging and institutional commitment were significant predictors of intentions to persist at the beginning of the school year.

In a follow-up study researching sense of belonging as a significant contributor to persistence models for African American and White college students, Hausmann, Ye, Schofield, and Woods (2009), added college GPA, and actual persistence to the initial study on persistence intentions. Students who had enrolled in the second semester of their second year were considered persisters. Students who had not enrolled were considered non-persisters. For students who were considered persisters, their cumulative GPA from the end of the fall semester of their second year was used in the analysis. For students who were non-persisters, their last recorded cumulative GPA was used. There were several important findings in the study. First, it supported sense of belonging as a

determinant of commitment to the university, intentions to persist and actual persistence for African American students (Hausmann et al., 2009). Second, it showed that university paraphernalia and letters from university administration did not increase a sense of belonging in African American students as it did for White students. These results suggest that it is important to consider other methods to increase a sense of belonging for African American students. Additionally, the study found that the largest total effect on actual persistence for African American students was GPA.

The research findings on sense of belonging are important as it relates to the dissertation study. First, the research points to the significance of a safe and welcoming campus climate for African American students. Second, it highlights the importance of including cultural variables, specifically those related to racial diversity, in campus climate perceptions. Third it supports the inclusion of sense of belonging in measures of cultural climate for African American students. Furthermore, for African American students, sense of belonging is linked to GPA and is a significant predictor of retention and persistence. Consequent to sense of belonging is experiences of discrimination. Because campus racial climate is commonly studied in the literature which typically includes examining student perceptions of discrimination, it is implied that experiences of discrimination are part of cultural climate.

Experiences of Discrimination

According to research findings by Cabrera and Nora (1994), perceptions of prejudice-discrimination are composed of three interrelated dimensions: perceptions of racial/climate on campus; perceptions of discriminatory attitudes held by faculty and staff; and in-class discriminatory experiences. When African American college students

experience discrimination or perceive a discriminatory campus climate it negatively impacts their grades (Smedley et al., 1993) and their sense of belonging (Gilliard, 1996). Other studies have found that African American students report feeling a higher sense of alienation (Cabrera & Nora, 1994), are less committed to their institution (Cabrera et al., 1999), and it lessens their adjustment to academic and social aspects of their institution (Nora & Cabrera, 1996) when they experience discrimination. Conversely, one longitudinal study found that when African American students perceived discrimination, it enhanced their academic commitment and motivation at the end of college (Levin, Van Laar, & Foote, 2006). The same study also supported previous findings that African American students tend to have more in-group friends as a support mechanism when they perceive more discrimination on campus (Levin et al., 2006; Levin, Van Laar, & Sidanius, 2003). In addition to academic impacts, one study found that when African American students perceived more racial discrimination, they reported higher depressive symptoms and less satisfaction with life than their peers who reported less perceptions of racial discrimination (Prelow, Mosher, & Bowman, 2006).

Unfortunately, for many African American students, discrimination is not only experienced from faculty and staff but from peers as well. One way that discrimination is experienced is through microaggressions. "Racial microaggresions are subtle insults (verbal, nonverbal, and/or visual) directed toward people of color, often automatically or unconsciously" (Solórzano, Ceja, & Yosso, 2000, p. 60). A qualitative study examining critical race theory, racial microaggressions, and campus racial climate captured examples of ways that African American students experience discrimination on their campuses. Within the classroom setting, one African American female student shared

that another student in her class stated that he did not want her to participate in his study group "because she was Black" (Solórzano et al., 2000, p. 67). An African American male reported a similar experience explaining that he felt discriminated against because no one wanted him as a partner in his chemistry lab. Because of these racial microaggressions, students reported feelings of isolation and more of a need to establish themselves. Students also reported racial microaggressions outside of the classroom from university staff and students and described it as general feelings of discomfort. Solórzano et al. explain that racial microaggressions contribute to a negative racial climate and discourage African American students from taking advantage of student services on campuses. The results of this study has negative implications for African American college students as it relates to academic achievement given the potential barrier students may face if they need academic support.

Based on the significant findings of previous research, it is critical to integrate experiences of discrimination when studying campus cultural climate. Many studies of campus racial discrimination focus on faculty and staff racial discrimination against students, however it is important to also consider discrimination from peers to capture a more holistic measure of its role in cultural climate. Furthermore, experiences of discrimination for African American populations are studied widely in psychological literature as it relates to psychological stressors and college adjustment; however there is a need to integrate it into measures of cultural climate as it relates to academic achievement. The dissertation study assumes that the less a student perceives their college climate as discriminatory, the more this will contribute to a welcoming cultural climate. Furthermore, the study assumes that a non-discriminatory environment

encompasses an assessment of discrimination from faculty, staff, and peers, and is interrelated with a sense of belonging for African American students (Gilliard, 1996).

Sociocultural discussions. For African American students, particularly those attending PWIs, it can be particularly important to connect with other African Americans students because of shared racial identity. However, African American students are open to connecting with other college peers regardless of shared race. For many African Americans students, part of feeling connected to the campus is connecting with others regarding issues of diversity and social justice outside of the classroom (Dugan, Kodama, & Gebhardt, 2012; Locks, Hurtado, Bowman & Oseguera, 2008). Colleges and universities are increasingly creating opportunities for students to attend culturally-themed events. Additionally, there are multicultural centers and programs that create opportunities for students to discuss diversity-related issues. Outside of university sponsored events, there may be opportunities to discuss diversity and multiculturalism within more casual settings. Regardless of how or where these sociocultural discussions take place, they present African American students with an opportunity to share the importance of their own cultural identities and learn about others' cultural identities (Locks et al., 2008).

In Dugan, Kodama, and Gebhardt's (2012) study of the influence of racial identity on socially responsible leadership development in college students, the role of sociocultural conversations was included as part of the analysis. Influenced by Astin's (1993) I-E-O model, Dugan, Kodama, and Gebhardt (2012) studied a diverse sample of college students who took the Multi-Institutional Study of Leadership (MSL) survey in 2009. The MSL survey consists of over 400 variables and scales measuring college

student leadership development as well as a college climate, student development and diversity (Dugan & Associates, 2012). There were a total of 8,510 cases from 101 four-year colleges and universities for the study representing males and females as well as various class standings. The average age of respondents was 21 years old. There was a minimum of 282 students from each racial group to meet statistical power. Racial identity was measured using the Collective Racial Esteem (CRE) scale, adapted from the Collective Self-Esteem Scale (CSES) (Luhtanen & Crocker, 1992), and is comprised of four subscales (public collective racial esteem, private collective racial esteem, importance to identity, and membership collective racial esteem). The study included self-efficacy for leadership, several dimensions of college environment including on and off campus involvement, participation in leadership roles, the frequency of mentoring experiences, and sociocultural conversations. The dependent variable, socially responsible leadership, was measured using the Socially Responsible Leadership Scale (SRLS). Reliability estimates for the SRLS for the study was between .96 and .97 across all racial groups. The alpha level in this study ranged from .89 to .91 across racial groups (Dugan, Kodama, & Gebhardt, 2012).

Hierarchical Linear Modeling (HLM) and regression modeling were used to analyze whether measures of CRE would explain more variance in socially responsible leadership than measures of racial group membership alone. Separate regression analyses for each racial group were also performed. Of the African American participants, private CRE, faculty mentoring, sociocultural conversations with peers, and membership in on and off campus student organizations were significant positive predictors of socially responsible leadership while leadership positions in campus organizations emerged as a

significant, negative predictor. Based on the results of this study, Dugan, Kodama, and Gebhardt (2012) suggest that sociocultural conversations are a powerful means to deconstruct in versus out group dynamics and as a tool for coalition building across identity-based groups. The research study further supports the importance of identity-based groups for students color as a means to negotiate the college environment (Dugan, Kodama, & Gebhardt, 2012). Furthermore, the results emphasize the importance and inclusion of racial identity development and mentoring when studying African American college student outcomes. Given these results it is plausible to further examine how mentoring relationships would also serve an important role in academic outcomes given its supportive nature.

Mentoring Relationships

Strayhorn and Terrell (2007) identified several mentoring types and programs including faculty-student mentoring, peer mentoring, professional-student mentoring, and faculty-faculty mentoring. A meta-analysis of 116 studies examining one-on-one non-parental mentoring outcomes identified that various types of youth, academic, and workplace mentoring have a significant positive relationship to behavioral (i.e., academic performance), attitudinal (i.e., school attitude), health-related (i.e., reducing substance use), interpersonal, motivational and career outcomes (i.e., skills/competence development) for people across the lifespan (Eby et al., 2008). Although an important factor in college success, there is limited research on the impact of the frequency of various types of mentoring relationships on African American college academic achievement, particularly when collectively examining campus cultural climate and racial

identity. This section examines research related to mentoring relationships for African American students and its significance to the current study.

Strayhorn and Terrell (2007) studied the relationship between faculty-student mentoring relationships and satisfaction with college for African American students by performing a secondary data analysis of the College Student Experiences Questionnaire (CSEQ) (Pace, 1984; Pace & Kuh, 1998). The CSEQ is a 191-item instrument measuring the quality and quantity of college student involvement. The study sample included 554 African American college students that completed the CSEQ in 2004. The participants were full-time first and second year students (196 male and 358 female) attending four-year colleges and universities. Hierarchical regression analysis was used to measure the relationship between two different types of mentoring relationships (research focused vs. personal/professional) and overall satisfaction with college. A second analysis measured whether there were different effects on satisfaction with college based on gender. Results revealed that there was a significant relationship between a research-based faculty mentoring relationship and satisfaction with college for African American men and women students. Results yielded an insignificant relationship between a personal mentoring relationship with faculty and satisfaction with the university. Although the study's finding were important it examines one population of mentors (faculty) and does not include other potential mentors (i.e., university staff, community members, peers). Furthermore, the study does not examine the relationship of faculty-mentorship and academic achievement.

In a follow-up study, Strayhorn (2008) analyzed data from 231 African American undergraduate men that completed the CSEQ in 2004 to examine the relationship

between supportive relationships and academic achievement, supportive relationships, and satisfaction with college, and supportive relationships and satisfaction with college when controlling for background variables (i.e., marital status, classification, parent's education) and college grades. The participants represented across all academic standings and the majority (52%) was 19 years old or younger. Academic achievement measured by grades and a composite variable of satisfaction with college were the two dependent variables. The independent variable, availability of a support person, was operationalized using 14 items from the CSEQ measuring the availability of a strong support person in various situations and circumstances (Strayhorn, 2008). Strayhorn used ordinary least squares (OLS) regression tests to measure the relationship between supportive relationships, academic achievement and satisfaction with college for Black men. Next, hierarchical regression analysis was used to examine whether there were significant linkages between supportive relationships and satisfaction with college when controlling for other variables. Results from Strayhorn's study show that having supportive relationships with faculty, staff, and peers on campus is associated with higher levels of satisfaction with college for Black men, despite differences in age, marital status, year in college, and grades. The study did not find a significant association between supportive relationships and grades.

Strayhorn's (2008) findings suggest that supportive relationships are important indicators of college success for Black men. Second, it highlights the significance of the frequency of supportive relationships. Based on Astin's (1993) I-E-O Model, the amount of effort that one puts into college involvement directly impacts the outputs (i.e., satisfaction with college, academic achievement). Although an important study, it

doesn't address how supportive relationships are related to academic achievement for Black women. Secondly, it is possible that students who have supportive relationships with others do not view them specifically as mentors. Mentoring typically implies a relationship where the mentor influences the growth and development of the mentee. Based on significant findings from mentoring research (Eby et al., 2008; Strayhorn, 2008; Strayhorn & Terrell, 2007), the dissertation study examines its significance on African American college achievement. Influenced by Astin's (1993) I-E-O model, which would indicate mentoring as an environmental influence, the dissertation study examines if the frequency of mentoring from various types of support persons (i.e., faculty, staff, peers) is a significant predictor of academic performance for African American men and women.

Racial Identity Development

Although varied, both psychological and higher education research suggests that the academic achievement and retention of African American students not only depends on academic and social integration, but cultural and psychological variables. What is often missing from the higher education research is the impact of the psychological construct, racial identity development. Racial identity is based on the perception of a shared racial history and reflects the identification with one's racial group (Helms, 1990; Phinney & Kohatsu, 1997). Helms (1990) defined racial identity as "a sense of group or collective identity based on one's perception that he or she shares a common racial heritage with a particular racial group" (p. 3). Racial identity development has been studied extensively in psychological literature but not in higher education. Within the higher education context, racial identity is often discussed in terms of racial or ethnic

differences on academic outcomes. Most of the psychological research on racial identity development focuses on college students, however there is no research examining its impact on academic achievement when also examining cultural climate and the frequency of interactions with mentors for African American college students.

According to Helms (1990), theories and models of Black racial identity began to appear around the 1970s in response to the Civil Rights Movement. There are several theories and models of racial identity development used to describe African Americans. These models have been theorized to explain a range of issues concerning African-Americans from counseling to academic settings. The remainder of this section examines various models of racial identity development as well as studies examining its impact in higher education.

One of the most referenced model of Black racial identity is Cross' (1971) five-stage model of Nigrescence (the process of becoming Black). Cross described African American identity development in five stages: Pre-encounter (stage 1); Encounter (stage 2); Immersion-Emmersion (stage 3); Internalization (stage 4); and Internalization-Commitment (stage 5) (Cross, 1991). Each stage represents one's progression from a non-Afrocentric identity to one that is Afrocentric. According to the Nigrescence model, the Pre-encounter stage is characterized by low salience, race neutrality, or anti-Black attitudes. African-Americans in this stage may see being Black as either insignificant, a social stigma, or as a negative reference group. According to the model, the Pre-encounter stage is usually shaped by the individual's early development and covers childhood, adolescence, and early adulthood (Cross, 1971).

The second stage of Cross' model is the Encounter stage (Cross, 1971). It entails two steps and is characterized by an individual experiencing an event that shatters the relevance of his or her current identity and worldview. This encounter may be a single dramatic event or a series of small events. An individual in this stage experiences the encounter and personalizes it. There may be a range of emotions associated with this stage including guilt, anger, and general anxiety.

The third stage is the Immersion-Emmersion stage (Cross, 1971). This stage represents a transition in one's identity. During this stage, one has made the decision to change but has not changed yet. The person in this stage is more familiar with his or her current identity than the one they plan to embrace. In the first phase, the person immerses him or herself in Black culture. He or she may be attracted to symbols of the new identity such as hairstyles and phrases and may demonize White culture. The second phase is an emergence from the ideologies of the immersion experience. The person is described as leveling off from the intense and emotional immersion phase. This stage typically represents someone that is moving toward an Afrocentric identity but Cross explained that this stage can also frustrate an individual and cause them to regress to previous stages, fixate at the current stage, or drop out of any involvement with Black issues (Cross, 1971).

During the fourth Internalization stage, one's new identity is internalized (Cross, 1971). His or her identity is naturalistic and gives high salience to Blackness. There are variances in this stage representing different ideologies, including nationalists whose concern for race is above any other considerations and those that consider Blackness as

one of several or many saliences. Individuals in this stage are more at ease with oneself and have an increased confidence in their personal standards of Blackness.

The final stage is Internalization-Commitment (Cross, 1971). There has been debate as to whether this stage is separate from the Internalization stage however it is distinguished as being focused on sustained interest and commitment. Further extensions of this five-stage model explain cycles of nigrescence across the lifespan rather than being a one-time event (Cross & Vandiver, 2001; Parham, 1989). The Cross Racial Identity Scale (CRIS) (Cross & Vandiver, 2001; Vandiver, Cross, Worrell, & Fhagen-Smith, 2002) was developed as a multidimensional instrument to measure an individual's racial identity development using Nigrescence theory.

Although Cross' (1971) original model is still widely used there were criticisms to this model. The earlier version of Cross' model assumed that race was central to African American identity. Cross' model has since been revised (Vandiver et al., 2002). In the newer model, four stages of Black racial identity are described rather than five as in the original (Cross, 1991; Vandiver et al., 2002). The four stages include the following: Pre-Encounter which is characterized by two identities (Assimilation and Anti-Black); Encounter; Immersion-Emersion which is characterized by two identities (Intense Black Involvement and Anti-White); and Internalization which is characterized by three identities (Black Nationalist, Biculturalist, and Multiculturalist Inclusive) (Cross, 1991; Vandiver et al., 2002).

An alternative to Cross' model is the Multidimensional Model of Racial Identity (MMRI) (Sellers, Rowley, Chavous, Shelton, & Smith, 1997). MMRI also assesses

racial identity development and does not make the assumption that race is central to one's identity.

According to Carson (2009), African American racial identity theory and research suggests that one's identity is multidimensional (Sellers et al., 1997; Sellers et al., 1998) and is created and constructed with others and surrounding environments. The MMMRI (Sellers et al., 1997) assumes that African Americans have a number of hierarchically ordered identities, of which race is only one. Additionally, racial identity has stable and situationally specific properties. These situational and dynamic properties interact to provide a mechanism for explaining how racial identity can influence behavior at the level of the situation and exhibit consistency across situations. According to Sellers et al., the MMRI proposes four dimensions of racial identity: racial salience, the centrality of identity, the regard in which one holds the group associated with the identity, and the ideology associated with the identity. The four dimensions will be explained further.

Racial salience is the extent to which one's race is a relevant part of one's self-concept at a particular moment or during a particular situation (Sellers et al., 1997). It is described as the mediating process between the more stable characteristics of identity and the way individuals evaluate and behave in specific situations. Salience is a function of both situational cues and individual differences. According to Sellers et al., these "person factors" are centrality. An example of race salience is the relevance of one's race when he or she is the only African American student in a class with all White students. A person's racial centrality may direct individuals to pay attention to certain cues and not pay attention to others. For example, an African American student high in racial centrality may notice if the White students are being called on more often during class and attribute

the instructor's behavior as purposeful due to the student's race. On the other hand, an African American student who is low in race centrality may attribute the same professor's behavior to another reason such as a time constraint.

Race centrality refers to the extent to which a person defines him or herself with regard to race (Sellers et al., 1997). Centrality is stable across situations and is characterized by a person's normative perceptions of self with respect to race across various situations. The conceptualization of centrality should be understood in terms of hierarchical ranking of different identities. For example, an African American's religion or gender may be ranked higher than his or her race.

Racial regard refers to a person's "affective and evaluative judgment" of his or her own race (Sellers et al., 1997, p. 806). Furthermore, it is the extent to which the individual feels positively or negatively about his or her own race. Regard has a public and a private component. Public regard is the extent to which individuals believe others view African Americans positively or negatively. Private regard is the extent to which an individual feels positively or negatively about being African American as well as how positively or negatively they feel toward African Americans. Research has shown that the concept of public regard plays an important role in the way African Americans identify with their own group (Sellers et al., 1997). Conflicting research shows that society's devaluing of African Americans should lead to more negative evaluations of that group (private regard), whereas, other research says that acknowledging oppression is in important step in the development of a healthy African American racial identity (Sellers et al., 1997).

Racial ideology refers to the individual's beliefs, opinions, and attitudes with respect to the way he or she thinks members of his or her race should act (Sellers et al., 1997). There are four philosophies associated with racial ideology: nationalist (stresses the uniqueness of being Black); oppressed minority (emphasizes the similarities between the oppression of African Americans and that of other groups); assimilation (emphasis on the similarities between African Americans and the rest of society), and; humanist philosophy (emphasis on the similarities among all humans). These ideologies are manifested across four areas of functioning including political/economic development, cultural/social activities, intergroup relations, and perceptions of the dominant group.

Sellers et al. (1997) suggest that the four dimensions of the MMRI should not be synonymous with racial identity and that they represent different ways in which racial identity is manifested. Additionally, different dimensions are related to different outcomes. Furthermore, Sellers et al. suggest that researchers should choose the dimension of racial identity that they study based on the goals of their research. Research suggests that racial centrality (the extent to which a person defines him- or herself with regard to race) and racial ideology (the meaning the individual ascribes to being Black) are significantly related to African American college students' cumulative GPA (Sellers, Chavous, & Cooke, 1998). In a study on African American 12th graders, Chavous et al. (2003) found that having high centrality, strong group pride, and positive beliefs about society's views of African Americans were related to more positive academic beliefs.

Although racial identity has been positively linked to academic performance, earlier research revealed negative relationships between racial identity and academic achievement. An ethnographic study on six African American adolescents suggested that

African American students may have to deny their race to perform better academically (Fordham, 1988). More recent research shows that racial pride aids academic success (Ward, 1990). In a study of 86 African American high school students, Witherspoon, Speight, and Thomas (1997) found both to be true. Influenced by the Cross (1971) nigrescence model, their research revealed that students with positive Black identity attitudes had good grades and students with pro-Black/anti-White attitudes had poor grades (Witherspoon, Speight, & Thomas, 1997, p. 354).

Another way to understand racial identity development is through collective identity and collective self-esteem. Luhtanen and Crocker (1992) developed the Collective Self-Esteem Scale (CSES) to measure the positivity of one's collective identity. Luhtanen and Crocker's definition of collective identity is derived from social identity theory (Tajfel & Turner, 1985). According to social identity theory, social identity is the part of an individual's self-concept that is derived from his knowledge of his membership in a social group or groups combined with the value and emotional significance of that membership (Luhtanen & Crocker, 1992). "Social identity can derive from a variety of group memberships, including race, gender, and occupation" (p. 302). According to Luhtanen and Crocker, social identity is a European term that typically references interpersonal domains and social roles when used in America. They identify collective identity as appropriate American terminology for what Tajfel and Turner define as social identity (Luhtanen & Crocker, 1992). Luhtanen and Crocker further define collective self-esteem as the "generalized tendency to evaluate one's social identity positively" (p. 316).

The CSES consists of four subscales that assess an individual's levels of social identity based on their memberships in ascribed groups pertaining to gender, race, religion, ethnicity, and socioeconomic class (Luhtanen & Crocker, 1992). The four subscales of the CSES include: membership esteem which measures an individuals' judgments of how good or worthy they are as members of their social group; public collective self-esteem which assesses one's judgments of how other people evaluate one's social groups; private collective self-esteem which assesses one's personal judgments of how good one's social groups are; and, importance to identity which assesses the importance of one's social group membership to one's self-concept (Luhtanen & Crocker, 1992). Research shows that the four aspects of collective self-esteem are interrelated and distinct (Crocker et al., 1994).

According to Luhtanen and Crocker (1992), when they developed the CSES, their intention was to create a measure that would capture a general, cross-group tendency to have a positive social identity rather than separate measures for individual social groups. Furthermore, they created the scale with the assumption that participants would answer based on overall evaluations of whatever domains were most salient to them personally. After several studies, the CSES was shown to be a valid and a reliable measure of collective self-esteem.

Additional research on the CSES, suggests that behaviors concerning one's racial group membership may be predicted more successfully by race-specific forms of the CSES (Crocker et al., 1994; Dugan, Kodama, & Gebhardt, 2012). An adapted form of the CSES was developed to measure the same four constructs of the original CSES but related to one's self-concept based on the racial group with which they identify (Crocker

et al., 1994). Because of earlier findings that the four constructs of the CSES were correlated and distinct, researchers addressed this issue to validate the use of calculating total scores on this measure with groups of various racial or ethnic identities in a study on ethnic identity and psychological well-being. Researchers found that correlations between the membership, private, and identity subscales were positive and significant for Black participants for the race specific form of the CSES (Crocker et al., 1994). Furthermore, their study showed that for Black students, beliefs about how others evaluate them (public collective self-esteem) has little bearing on how the students feel about themselves or their roles as African Americans (Crocker et al., 1994). Research has shown that CRE is correlated with other measures of racial identity development (Dugan, Kodama, & Gebhardt, 2012). Both constructs differentiate between the salience of one's racial identity, beliefs about one's racial group membership, as well as private and public regard. One study using data collected from the MSL survey in 2009 measured CRE and its impact on leadership development in college students (Dugan, Kodama, & Gebhardt, 2012). Similar to this study, they also measured frequency of mentoring and sociocultural discussions on leadership development.

There is substantial research supporting the importance of racial identity on psychological outcomes for African Americans, however there is no agreed upon measure of racial identity development (Cokley, 2007). Cokley suggests that further research using different measurements of racial identity scales is necessary. Although several studies suggest looking at separate constructs of racial identity and their relationship to different variables, research on the CSES suggests that a cumulative measure of collective self-esteem, including CSES measuring specific social identities,

such as race, is also appropriate, with a total scale alpha of .85 for the CSES (Luhtanen & Crocker, 1992). Luhtanen and Crocker reported a total scale alpha of .88 for revised versions specific to one's social identity and report revised versions have similar psychometric properties as the original scale. A race specific scale used with Hispanic/Latino sample yielded alphas ranging from .66 to .92 on each of the subscales of collective racial esteem (Luhtanen & Crocker, 1992). In order to add to the research on the use of cumulative racial identity measures, the current dissertation uses a cumulative measure of racial identity using the collective racial esteem scale from the 2012 MSL survey to identify how a global measure of positive racial identity attitudes is related to cultural climate, mentoring relationships, and GPA. Additionally, the dissertation study hopes to add to the literature examining the relationship between racial identity and academic achievement for African American college student populations as most of the literature examining racial identity and academic performance is on high school populations (Sellers et al., 1998). Furthermore, research suggests that racial identity is more salient when African American students attend PWI's (Steck, Heckert, & Heckert, 2003). Because this study examines African American students attending PWIs and HBCUs, a total score of collective racial esteem that can be reliably assessed across institutional type may be more appropriate.

Although there is research to support a moderating relationship between racial identity and academic performance (Sellers et al., 1997), there is also research to support that racial identity when measured as collective racial esteem mediates the relationship between experiences of discrimination and psychological distress for African American populations (Cassidy, O'Connor, Howe, & Warden, 2004; Crocker et al., 1994).

However, there are no studies identified by the researcher that examine whether racial identity mediates the relationship between experiences of discrimination when integrated into the context of cultural climate and academic performance for African American college students. Therefore, the dissertation study examines the relationship between cultural climate, racial identity and academic performance, in order to identify if students experience a positive cultural climate, this increases their collective racial esteem, and the increased collective racial esteem increases their GPA.

Parental Educational Attainment

In addition to environmental, social and psychological contributors to academic achievement, there is also growing research on the impact of background characteristics such as, parental educational attainment. It is estimated that 20% of beginning first-generation college students (students whose parents have never attended college) are African American (Tym, McMillion, Barone, & Webster, 2004). African American first-generation students potentially face various challenges related to this intersecting identity as it relates to academic performance. Students from first-generation and low-income backgrounds are among the least likely to be retained and complete a degree (Thayer, 2000; Tym et al., 2004). Furthermore, first-generation students are likely to perceive less support from their families for attending college (Gibbons & Borders, 2010; Thayer, 2000; Tym et al., 2004). At 4-year institutions, first-generation beginning students are twice as likely as students whose parents had a bachelor's degree to leave before their second year (Choy, 2001; Tym et al., 2004). Research also suggests that first-generation students are at a disadvantage with respect to knowledge about post-secondary education (Pascarella et al., 2004). These risk factors along with campus cultural climate and racial

identity have the potential to collectively impact academic performance for African American students.

Even though there is research to support that parental educational attainment impacts attrition (Pascarella & Chapman, 1983; Pascarella & Terenzini, 1983), there is minimal research examining how varying levels of parental educational attainment impact the academic performance of African American students, particularly as it relates to the study variables (cultural climate, mentoring, racial identity). Research on first-generation students often groups those whose parents never attended college against those whose parents have earned associates degrees, bachelor's degrees, or higher, without taking into consideration potential differences among all levels of educational attainment (i.e., never earned a high school diploma/GED vs. those who have earned a high school diploma). This study examines how parental educational attainment is related to academic performance for African American college students. Additionally, the current dissertation study is designed to examine how mentoring, cultural climate, and racial identity similarly impact academic achievement for African American students regardless of their parent's educational background. When structuring retention efforts, focused specifically on African American student academic performance, there is a need to identify social, environmental, and psychological commonalities among this population, while simultaneously recognizing that they come from diverse family educational backgrounds.

Gender

In addition to parental educational attainment, another demographic variable that impacts college academic performance is gender. African American women enroll in

college at higher rates than African American men (Cross & Slater, 2000; NCES, 2013), graduate at higher rates than African American men (NCES, 2013) and perform better academically (Cross & Slater, 2000). Although these statistics for African American college students sound alarming, these differences in academic outcomes are similar when compared to other racial/ethnic groups (NCES, 2013). The differences in academic achievement between African American men and women point to the growing body of research specifically on issues related to African American male college students (Harper & Quaye, 2007; Singer, 2005; Strayhorn, 2008). Although research specific to the needs of African American male college students is critical, similar to parental educational attainment, this study examines similarities among the study variables and their relationship to GPA for all African American college students regardless of gender in order to capture a more inclusive understanding of variables impacting academic performance for this population.

Theoretical Framework for Study

The current dissertation study examines cultural climate, mentoring, and racial identity by conceptualizing their role in academic performance as it relates to retention and persistence for African American college students. This section will discuss the theoretical framework for the study by describing two retention theories. First, Tinto's (1993) Theory of Departure will be discussed followed by Astin's (1985) Theory of Student Involvement. Following a discussion of the theories, a discussion of their relevance to the current dissertation study will be discussed.

Tinto's Theory of Departure

Although Tinto's (1993) Theory of Student Departure has received criticism for only addressing the needs of traditional college populations, it is still one of the most widely used retention models. As stated previously, according to Tinto's theory, to persist, students need integration into formal (academic performance) and informal (faculty/staff interactions) academic systems and formal (extracurricular activities) and informal (peer-group interactions) social systems. According to the theory, when students fail to integrate into these systems, they have higher rates of attrition. Research has shown that this may be even more important for African American students, indicating that more interactions with faculty positively impact their retention and academic performance (Braddock, 1981; Cokley, 2000; Nagda, Gregerman, Jonides, Hippel, & Lerner, 1998; Lundberg & Schreiner, 2004; Nettles, Thoeny, & Gosman, 1986). Furthermore, research has shown that institutional identification is more important for African American retention than other groups (Nagda et al., 1998). There are no prior studies examining the dissertation study variables for African American college students using Tinto's theory. Based on Tinto's (1993) theory and previous research findings, one might expect that cultural climate and mentoring which are forms of social and academic integration have an impact on academic performance for African American college students. Although Tinto's theory of student departure is relevant for the current study it doesn't directly address academic achievement. Another theory used to understand academic outcomes for college student populations is Astin's (1985) theory of student involvement. The next section will explain how this model explains college student outcomes.

Astin's Theory of Student Involvement

Astin's theory of student involvement, originally developed in 1984, refers to "the amount of physical and psychological energy that a student devotes to the academic experience" (Astin, 1999, p. 518). An involved student may be characterized by the amount of time spent on campus, participating actively in student organizations, and interacting frequently with faculty members and students, whereas an uninvolved student may neglect their studies, spend little time on campus or in extracurricular activities, and have infrequent contact with other students and faculty (Astin, 1999). Involvement is a behavioral component and has five basic postulates:

1) Investment of physical and psychological energy in various objects such as the student experience or studying for an exam;
2) Regardless of its object, involvement occurs along a continuum;
3) Involvement has both quantitative and qualitative features;
4) The amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement; and
5) The effectiveness of educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement. (p. 519)

Astin's (1985) theory of student involvement recognizes the importance of the interactive process between student engagement, the college environment, and educational outcomes. Furthermore, this theory explains ways that multiple behaviors and processes facilitate student development (Astin, 1999). Astin validated his theory through numerous studies using longitudinal data on samples totaling more than 200,000 students and over 80 student outcomes. One important finding included the significance of frequent interactions with faculty and satisfaction with college (Astin, 1999). Astin found that frequent interactions with faculty were more strongly related to satisfaction

with college than any other type of involvement, student characteristic, or institutional characteristic.

Astin's (1993) I-E-O Model (see Figure 1) is typically used to measure theoretical concepts in his theory of involvement (Wolf-Wendel, Ward, & Kinzie, 2009). Recent studies have used this model to examine educational outcomes for African American college student populations (Dugan, Kodama, & Gebhardt, 2012; Walpole, 2008). The dissertation study examines all study variables using data from the 2012 MSL survey (Dugan & Associates, 2012) which uses an adapted version of Astin's (1993) I-E-O model for its conceptual framework and allows for an examination of the constructs relevant to the dissertation study. The MSL adaptions include expanded environmental inputs to capture experiences such as mentoring and a retrospective approach to measure pre-college data (Dugan, 2015).

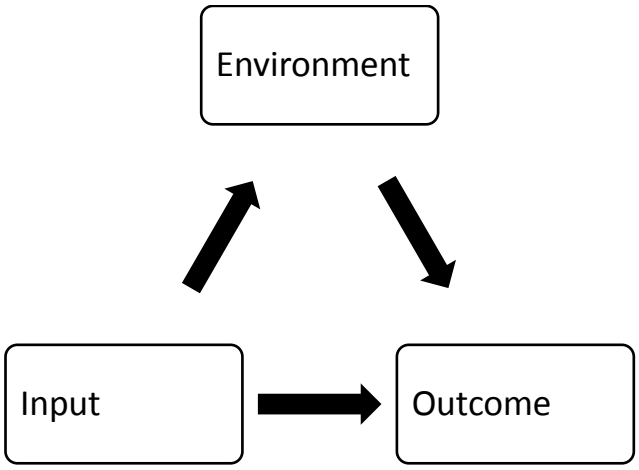

Figure 1. Astin's I-E-O Model

Summary

In conclusion, the literature addresses the importance of examining academic and non-academic factors, including psychological contributors, to academic achievement

and retention for African American students but there is no agreement as to what variables are most significant. Although evidence supports that high school GPA and achievement test scores predict first-year college retention, there is disagreement regarding which variables are significant for African American college student populations, particularly across different types of institutions. As college GPA is one determinant of persistence and retention, so are other academic and non-academic variables. The literature supports the importance of racial identity development, however there is no agreed upon instrument to best assess for it. Furthermore, racial identity development has been studied extensively with African American college student populations, however, there are limited studies addressing its link to college academic performance. Research also supports the relevance of mentoring relationships and its impact on student success. Additionally, cultural climate is also shown to impact student satisfaction with college but it is unclear of its relation to academic achievement. A review of the literature has found no studies that examine the relationship between racial identity development, cultural climate, mentoring, and GPA. Furthermore, a review of the research analyzing MSL survey data show that no studies examine the relationship between these exact variables in relation to each other and GPA, although one study examined mentoring and collective racial esteem, among other variables in relation to leadership outcomes (Dugan, Kodama, & Gebhardt, 2012).

Social, environmental and psychological variables such as those included in the dissertation are necessary in order to understand how to address the needs of the African American college student population. There are research findings that support differences in academic performance based on parental education, but more research is

needed in this area for African Americans when examining other variables impacting academic performance. Influenced by Tinto's (1993) theory of departure, Astin's (1985) theory of student involvement, social and racial identity theories, and higher education and psychological literature addressing cultural variables specific to African American college students, the current study examines the relationship between cultural climate, racial identity, and mentoring relationships on academic performance when measured by GPA for African American college students. The researcher also examines any additional variance accounted for in GPA based on student characteristics such as gender and parental educational attainment and similarities among the study variables (amount of mentoring, cultural climate, and racial identity) in their relationship to GPA when comparing the sample based on gender and comparing based on parent's educational attainment. The next chapter will discuss the methodology used for the study.

CHAPTER THREE

METHODOLOGY

This section will describe the data analysis procedures that were used to conduct the study. In order to quantify the direct relationship between the independent variables and the dependent variable, the study examines quantitative data using the responses to the scale items for each study variable (Howell, 2013). Information will include a description of the 2012 MSL dataset, the sample for this study, the instruments used, and scale development. The researcher will then discuss descriptive statistics and data analysis procedures to obtain sample means, correlations between the independent variables and the dependent variable as well as procedures used for the hierarchical multiple regression model and mediation model.

Data Source: Multi-Institutional Study of Leadership

Student responses to the 2012 MSL survey were analyzed for this study, as this is the most recent data set available. This was the fifth administration of the MSL survey since 2006. The 2012 MSL consists of over 400 variables, scales, and composite measures designed to measure student demographic information, pre-college knowledge and experiences, experiences during college, and leadership and educational outcomes (Astin, 1993; Dugan & Associates, 2012). The theoretical framework for the MSL is nested in the social change model of leadership which measures socially responsible leadership capacity with additional influences from contemporary leadership theory,

social psychology and human development, and critical and justice-based perspectives (Dugan & Associates, 2012). The social change model of leadership was created specifically for use in working with college students and is consistently named as one of the most well-known and applied student leadership models (Kezar, Carducci, & Contreras-McGavin, 2006; Dugan & Associates, 2012; Owen, 2012). Several studies have shown the MSL to be consistently reliable and valid (MSL, 2012; Tyree, 1998). At present, the international questionnaire has been used by more than 250 colleges and universities with over 300,000 student participants. This particular dataset was chosen for the dissertation study because it captures all of the study variables and was given to a large sample of African American students.

The MSL is used to collect college information about students across three domains: input variables, experiences during college, and outcomes (Dugan & Associates, 2012). These domains are associated with high-impact educational practices and capture the degree of achievement across educational and leadership outcomes (Dugan & Associates, 2012). The input variables consists of demographic and pre-college knowledge and experiences and includes age, gender and sexual identity, racial and ethnic group membership, military status, parental education and income, pretest measures for all educational outcomes, and involvement experiences prior to higher education. The experiences during college domain consists of several variables including mentoring relationships, academic-based experiences, involvement experiences, civic engagement involvement, leadership development experiences, and interactions about and across difference and perceptions of campus climate (Dugan & Associates, 2012). The outcomes domain includes several measures: leadership capacity; leadership

efficacy; leadership behaviors; higher order cognitive abilities, including complex cognitive skills and social perspective-taking; developmental outcomes related to resilience, racial identity and spiritual development; and, sense of belonging on campus (Dugan & Associates, 2012).

Sample

A total of 92 schools enrolled in the 2012 MSL study, including institutions from Canada, Mexico and the West Indies; however, only USA schools are included in the 2012 national dataset. The response rate was 33%, representing 77,148 completed cases. Participating institutions were asked to draw a sample of 4,000 undergraduate students (both full and part-time) from their total population. Data was collected during the spring 2012 semester and administered online by the Survey Sciences Group, LLC. Students were invited to participate via e-mail. In order to increase response rate, institutions had the option to host sweepstakes-style drawings for students who completed the survey. Additionally, MSL offered prizes at the national level to stimulate responses. The survey data includes no personal identifiers. The MSL survey took approximately 20-25 minutes to complete with built in skip-patterns. More information about the MSL instrument can be found at www.leadershipstudy.net.

The sample for the dissertation study was restricted to participants who identified their broad racial group membership as African American/Black and were enrolled as full-time students and classified as sophomores attending four-year institutions. Previous studies have observed significant differences in educational contexts between two-year and four-year institutions (Cohen & Brawer, 2008). Additionally, the sample only included participants that started college at the institution they attended at the time they

completed the survey. This sampling strategy controlled for differences between students who attend two-year versus those who attend four-year institutions. Additionally, this strategy allowed for an analysis of only those students who had been retained at their current institution at the time of the survey. Furthermore, this sample represented how retention rates are typically measured at colleges and universities. The total sample for the dissertation study was 403 participants.

Variables

The predictor variables in this study for research questions 1 and 2 included the following continuous variables: cultural climate, amount of mentoring, and racial identity (collective racial esteem). GPA, also a continuous variable, was the dependent variable. For research question 3, the continuous variable, parental educational attainment, is used as an independent variable. For research question 4, gender is used as the independent variable with two levels: male and female. The value for male = 1 and for female = 2 in the study.

Cultural Climate (CC)

The predictor variable, cultural climate (CC), is a continuous composite variable measured using the 8-item College Climate Scale which includes statements that refer to a belonging climate and a non-discriminatory climate combined with the Socio-Cultural Discussion Scale (six items) from the MSL 2012 data set (Dugan & Associates, 2012). All items from the College Climate Scale are rated on a 5-point Likert-type scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). Sample statements from this scale include “I feel valued as a person at this school” and “I have observed discriminatory words, behaviors or gestures directed at people like me.” Additionally, all items from the

Socio-Cultural Discussions Scale are rated on a 4-point Likert-type Scale ranging from 0 (Never) to 3 (Very often). The Socio-Cultural Discussions Scale asks, "During interactions with other students outside of class, how often have you done each of the following in an average school year?" Participants are asked to select a response on a 4-point Likert-type scale ranging from 0 (Never) to 3 (Very Often) for six statements. Examples of statements include, "Talked about different lifestyles/customs," "Held discussions with students whose personal values were different from your own," and "Discussed your views about multiculturalism and diversity."

Racial Identity Development

Racial identity development was measured using the 16-item Collective Racial Esteem (CRE) scale from the MSL 2012 data set (Dugan & Associates, 2012) which consists of statements related to membership collective racial esteem, private collective racial esteem, public collective racial esteem, and importance to identity. All items are rated on a 7-point Likert scale ranging from 1 (Strongly disagree) to 7 (Strongly agree). Examples of items from Collective Racial Esteem Scale include, "I am a worthy member of my racial group," "I often regret that I belong to my racial group," "The racial group I belong to is an important reflection of who I am," and "Overall, my racial group is considered good by others."

Mentoring Frequency

Mentoring relationships was measured using the reported frequency that students received mentoring from various types of mentors. For this scale, students are asked, "Since you started at your current college/university, how often have the following types of mentors assisted you in your growth or development?" Students are given the option

to select from a 4-point Likert-type scale ranging from 0 (Never) to 3 (Often) for each mentor type: Faculty/Instructor; Academic or Student Affairs Professional Staff (ex. Student organization advisor, career counselor, Dean of Students, academic advisor, residence hall coordinator); Employer; Community member (not your employer); Parent/Guardian; and, Other Student.

Table 1. Independent Variables

Independent Variable	Item	Response Range/ Coding
Block 1		
Age (DEM6)	30. What is your age?	Open Response
Gender (DEM7)	31. What is your gender?	1 = Male 2 = Female 3 = Transgender (If 1 or 2, skip to question #32)
Parent's Educational Status (DEM 14)	39. What is the HIGHEST level of formal education obtained by any of your parent(s) or guardian(s)? (Choose one)	1=Less than high school diploma or less than a GED 2=High school diploma or a GED 3=Some college 4=Associates degree 5=Bachelors degree 6=Masters degree 7=Doctorate or professional degree (ex. JD, MD, PhD) 8=Don't know
Block 2		
Mentoring	18b. A mentor is defined as a person who intentionally assists your growth or connects you to opportunities for career or personal development. Since you started at your current college/university, how often have the following types of mentors assisted you in your growth	0 = Never 1 = Once 2 = Sometimes 3 = Often *Recoded to 1-4

	or development? ENV8b1 Faculty/Instructor ENV8b2 Academic or Student Affairs Professional Staff (ex. student organization advisor, career counselor, Dean of Students, academic advisor, residence hall coordinator) ENV8b3 Employer ENV8b4 Community member (not your employer) ENV8b5 Parent/Guardian ENV8b6 Other Student	**Total Mentoring Cumulative Scale: 6 to 24**
Cultural Climate: • Socio-Cultural Discussions Scale	19. During interactions with other students outside of class, how often have you done each of the following in an average school year? (Select one for each) ENV9a Talked about different lifestyles/customs ENV9b Held discussions with students whose personal values were very different from your own ENV9c Discussed major social issues such as peace, human rights, and justice ENV9d Held discussions with students whose religious beliefs were very different from your own ENV9e Discussed your views about multiculturalism and diversity ENV9f Held discussions with students whose political opinions were very different from your own	0 = Never 1 = Sometimes 2 = Often 3 = Very Often *Response choices recoded 1 to 4 for cumulative scale
• College Climate (Belonging Climate & Non-Discriminatory Climate)	29. Indicate your level of agreement with the following statements about your experience on your current campus ENV11a_1 I feel valued as a person at this school ENV11a_2 I feel accepted as a part of the campus community **ENV11a_4 I have observed	1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree

	discriminatory words, behaviors or gestures directed at people like me ENV11a_5 I feel I belong on this campus **ENV11a_11 I have encountered discrimination while attending this institution **ENV11a_12 I feel there is a general atmosphere of prejudice among students **ENV11a_15 Faculty have discriminated against people like me **ENV11a_16 Staff members have discriminated against people like me	**Negative response items reverse scored in *SPSS* **Total Cultural Climate Cumulative Scale: 14 to 64**
Racial Identity Development: CRE subscales Membership – (SUB4a, SUB4e, SUB4i, SUB4m) Private – (SUB4b, SUB4f, SUB4j, SUB4n) Public – (SUB4c, SUB4g, SUB4k, SUB4o) Importance to Identity – (SUB4d, SUB4h, SUB4l, SUB4p)	SUB4a I am a worthy member of my racial group SUB4b I often regret that I belong to my racial group** SUB4c Overall, my racial group is considered good by others SUB4d Overall, my race has very little to do with how I feel about myself** SUB4e I feel I don't have much to offer to my racial group** SUB4f In general, I'm glad to be a member of my racial group SUB4g Most people consider my racial group, on the average to be more ineffective than other groups** SUB4h The racial group I belong to is an important reflection of who I am SUB4i I am a cooperative participant in the activities of my racial group SUB4j Overall, I often feel that my racial group is not worthwhile** SUB4k In general, others respect my race SUB4l My race is unimportant to my sense of what kind of person I am**	1 = Strongly Disagree 2 = Disagree 3 = Disagree Somewhat 4 = Neutral 5 = Agree Somewhat 6 = Agree 7 = Strongly Agree **Negative response items reverse scored in *SPSS* **Total Racial Identity Development Cumulative Scale: 16 to 112**

	SUB4m I often feel I am a useless member of my racial group** SUB4n I feel good about the racial group I belong to SUB4o In general, others think that my racial group is unworthy** SUB4p In general, belonging to my racial group is an important part of my self image	

Grade Point Average

For the dissertation study, the continuous variable, GPA was used to measure academic performance as the dependent variable. Using the MSL 2012 data set (Dugan & Associates, 2012), all participants are asked to self-report their current GPA at the time of the survey choosing from six possible responses including: 1=3.50-4.00; 2=3.00-3.49; 3=2.50-2.99; 4=2.00-2.49; 5=1.99 or less; and, 6=No college GPA.

Table 2. Dependent Variable

Dependent Variable	Item	Response Range
GPA (DEM13)	38. What is your best estimate of your grades so far in college? [Assume 4.00 = A] (Choose One)	1 = 3.50 – 4.00 2 = 3.00 – 3.49 3 = 2.50 – 2.99 4 = 2.00 – 2.49 5 = 1.99 or less 6 = No college GPA* *Students that responded with 6 were not included in final sample

Parent's Educational Attainment

Parent's educational attainment was measured using an item from the demographic section of the MSL 2012 data set (Dugan & Associates, 2012). Participants are asked to respond to the following question, "What is the HIGHEST level of formal

education obtained by any of your parent(s) or guardian (s)? (Choose one)." Participants are given the following options: 1=Less than high school diploma or less than a GED; 2=High school diploma or a GED; 3=Some college; 4=Associates degree; 5=Bachelors degree; 6=Masters degree; 7=Doctorate or professional degree (ex., JD, MD, PhD); or 8=Don't know. Students whose parents had no college experience are classified as first-generation in the MSL 2012 data set.

Gender

The gender of the study participant was obtained using the MSL 2012 data set (Dugan & Associates, 2012). Participants are asked, "What is your gender?" and are given the following options: 1=Female, 2=Male, 3=Transgender. If participants selected Transgender they were asked to indicate which of the following best described their identity: 1=Female to male, 2=Male to female, 3=Intersexed, or 4=Rather not say.

Data Analysis Procedures

The researcher used *IBM SPSS Statistics 23.0* software for all statistical procedures related to the data set. First, the researcher cleaned the data by using descriptive statistics to search for missing data related to the study variables. This is to ensure the sample includes students who answered most items related to the study and who match the intended sample demographics (African American, sophomores, full-time, started college at the institution). Students who reported that they do not have a GPA, as indicated by a value of -3 were removed.

Data Screening

The original dataset from the 2012 MSL included 808 African American students who identified as full-time first-time bachelor's degree-seeking sophomores at the time

they took the survey at their college or university. Each participant also indicated that they had not transferred and that they attended the same institution the previous year. Participants completed the survey between January and April 2012.

Prior to main analyses, the researcher examined the data through the *SPSS 23.0* program for accuracy of data entry, missing values, outliers, and the normality of distributions. After analyzing descriptive data for the study variables, it was determined that 404 students completed the scale items relevant for the study. Further analysis of the data set revealed that only one participant of the 404 identified as transgender. Since gender was one of the comparisons, this participant was deleted as the results would not yield sufficient power for a comparison group.

In order to analyze the data, three scales were created to measure the predictor variables: amount of mentoring, cultural climate, and racial identity development. The amount of mentoring scale was created using the item "since you started at your current college/university, how often have the following types of mentors assisted you in your growth and development?" Participants were given a choice of six types of mentors: faculty/instructor, academic or student affairs professional staff, employer, community member (not employer), parent/guardian, or other student. The original scale in the 2012 MSL had a range of responses from 0 = Never to 3 = Often. For the dissertation study the researcher changed the values for the responses to reflect a range of responses from 1=Never to 4=Often. Next, the researcher created the amount of mentoring scale using the compute variable function in *SPSS* for the six items. The amount of mentoring scale created a range of scores from 6 to 24. The higher the score on this scale, the higher the frequency of assistance from a mentor. Estimates of internal consistency were examined

using the reliability analysis function in *SPSS*. The alpha coefficient for amount of mentoring was .69. Pallant (2005) suggests an internal consistency of .70 or higher, suggesting that this scale may need to be interpreted with caution.

The cultural climate scale was created using all items from the socio-cultural discussions scale and the college climate scale. In the socio-cultural discussions scale, participants were asked, "during interactions with other students outside of class, how often have you done each of the following in an average school year?" Participants were given six responses with a range of values from 0=Never to 3=Very Often. Values were changed in *SPSS* to reflect a value range from 1=Never to 4=Very Often. The college climate scale consisted of 3 items that reflected a belonging climate and 5 items that reflected a non-discriminatory climate. From the college climate scale, participants were asked, "indicate your level of agreement with the following statements about your experience on your current campus." A sample of a belonging climate item is "I feel valued as a person at this school." A sample of a non-discriminatory climate item is "I have observed discriminatory words, behaviors or gestures directed at people like me." Responses on all items related to college climate ranged from 1=Strongly Disagree to 5=Strongly Agree. All negative response items in the data set were previously reverse scored by the administrators of the 2012 MSL data set in *SPSS*, therefore, low scores on the non-discriminatory climate scale reflected a more discriminatory climate and scores high on this scale reflected a more open environment. The researcher computed the cultural climate scale in *SPSS* using all 14 items. The scale reflects a range of scores from 14 to 64. The higher the score on the cultural climate scale, the more the participant experienced a warm and welcoming cultural climate. Next, the researcher estimated

internal consistency using the reliability analysis function in *SPSS*. The cultural climate scale yielded an alpha coefficient of .78.

To create the racial identity development scale, the researcher used all 16 items from the collective racial esteem scale, which is comprised of four subscales (membership racial esteem, private racial esteem, public racial esteem, and importance to identity) with four items for each subscale. Sample items from the collective racial esteem scale include, "I am a worthy member of my racial group," "I often regret that I belong to my racial group," Overall, my racial group is considered good by others, and "Overall, my race has very little to do with how I feel about myself." Item responses range from 1=Strongly Disagree to 7=Strongly Agree. All negative response items in the data set were previously reverse scored in *SPSS* by the administrators of the 2012 MSL data set, therefore, lower scores on any of the collective racial esteem scale items indicate lower racial esteem and higher scores indicate higher racial esteem. The researcher computed the racial identity scale in *SPSS* entering all 16 items. The range of scores is from 16 to 112. The higher the score on the racial identity scale the higher the collective racial esteem of the participant. Estimates of internal consistency using the reliability analysis function in *SPSS* yielded an alpha coefficient of .79.

Table 3. Cronbach's Alpha: Independent Variables

Scale Reliability	**Mentoring**	**Cultural Climate**	**Racial Identity Development**
Cronbach's Alpha	.692	.778	.794
Number of Items	6	14	16

When examining the data for normality, an analysis of the frequency statistics for the 403 participants revealed that the study variables: amount of mentoring (*M* = 13.03,

SD = 4.46); cultural climate (*M* = 44.61, *SD* = 7.70); racial identity development (*M* = 78.49, *SD* = 13.24); and parental educational level (*M* = 4.53, *SD* = 1.68), had skewness and kurtosis values less than the absolute value of 2. Heppner and Heppner (2004) advise that values for skewness and kurtosis that are closer to 0 and less than the absolute value of 2 are desirable. The demographic variable, age, had a skewness of 11.13 and a kurtosis of 150.26 indicating that there was low variability in age among the sample. The researcher also ran frequency statistics for Carnegie institution classification, institution selectivity, religious affiliation, and setting. Those numbers are reported in the results section.

The researcher ran an analysis of bivariate correlations between amount of mentoring, racial identity development, cultural climate, and GPA ($p < .05$). To test the first study hypotheses, the researcher conducted a hierarchical multiple regression analysis using GPA as the dependent variable. Any background variables, such as gender, age, and parent's educational status, from the bivariate correlations that had a significant correlation to GPA were entered in the first block to control for their relationship. This entry coincided with the I-E-O model (see Table 4) which indicates background variables as inputs. Cultural climate, amount of mentoring, and racial identity development were entered into the second block. These variables were entered according to the I-E-O model for environments; however, racial identity was entered as an environmental variable because of its exploratory nature in the study. The dependent variable, GPA, coincided with the outcome measurement for the I-E-O model. An a-priori statistical analysis for the hierarchical multiple regression model calculated a minimum sample size of 79 participants for a medium effect size of .15, with a statistical

power of .8 and a probability of .05 (Soper, 2014). To test the second hypothesis, an analysis of the relationship between racial identity, cultural climate, and GPA were performed. According to Howell (2013), in order for racial identity to mediate the relationship between cultural climate and GPA several conditions must be met: (a) cultural climate must predict racial identity development, and (b) cultural climate must predict GPA, and (c) when GPA is regressed on cultural climate and racial identity development, racial identity development must predict GPA and the ability of cultural climate to predict GPA must be significantly reduced (see Figure 2). To test the third hypothesis, separate hierarchical regression analyses were performed based on parent's educational attainment with age and gender entered in the first block and amount of mentoring, cultural climate, and racial identity entered in the second block. To test the fourth hypothesis, separate hierarchical regression analyses were performed based on gender with age and parent's educational attainment entered in the first block and amount of mentoring, cultural climate, and racial identity entered in the second block. An a-priori analysis for the separate hierarchical regression models revealed a minimum sample size of 78 participants to detect a medium effect size of .15, with a statistical power of .8 and a probability of .05 (Soper, 2014). Results for all of the analyses are reported in the Chapter Four.

Table 4. RQ1: Adapted I-E-O Hierarchical Regression Model of GPA Outcome

INPUT	**ENVIRONMENT**	**OUTCOME**
Block 1 Age Gender Parent's Educational Attainment	**Block 2** Mentoring Cultural Climate Racial Identity	GPA

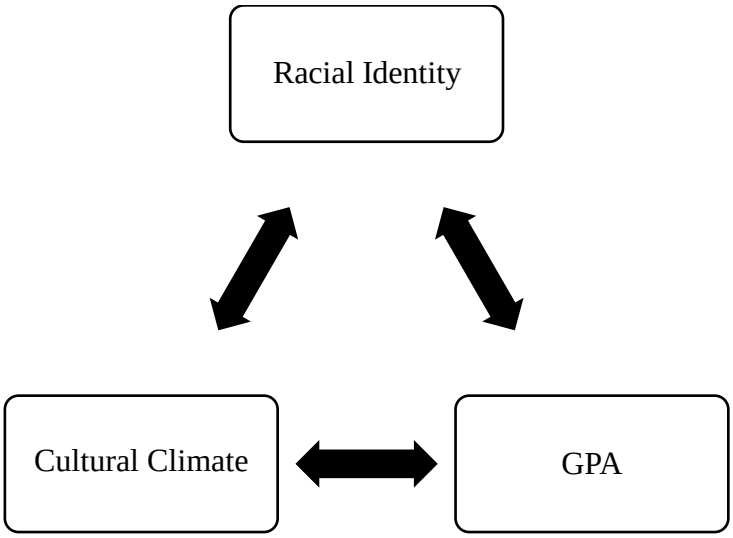

Figure 2. RQ2: Mediation Model

CHAPTER FOUR

RESULTS

This chapter describes and summarizes the statistical analyses used to evaluate the research questions and hypotheses established in the previous chapters. First, a description of the final sample and institutional characteristics are provided. Next, the chapter reports the correlations between all study variables as well as results of the analysis of variance (ANOVA) for parent's educational attainment and gender. Third the results of the four research questions are discussed.

Descriptive Data

The study included 146 men (36.2%) and 257 women (63.8%) for a total of 403 participants who attended 4-year colleges and universities. The mean age of the sample was 19.61 years (*SD* = 1.90) with ages ranging from 18 to 48 years. One participant did not respond with his or her age. Seven participants reported that they did not know the highest level of education obtained by either of their parents or guardians.

The participants represented a diversity of institution classifications (*M* = 3.92, *SD* = 1.12) settings (*M* = 3.54, *SD* = .76), selectivity (*M* = 5.24, *SD* = 1.11), and religious affiliation (*M* = 1.59, *SD* = .493). According to the National Center for Education Statistics (NCES) Integrated Postsecondary Education Data System (IPEDS) Carnegie classification, 8 students attended a Baccalaureate/Associate's institution, 30 students attended a Baccalaureate institution, 133 students attended a Master's institution, 47 students attended a Doctoral/Research institution, and 185 attended a Doctoral-granting

institution with either high or very high research activity. Of the institutions represented, there were 167 participants (41.4%) that attended religious-affiliated institutions and 236 participants (58.6%) who attended secular institutions (IPEDS). According to Barron's institution selectivity classification, 5 students (1.2%) attended non-competitive institutions, 2 students (.5%) attended less competitive, 95 students (23.6%) attended competitive, 170 students (42.2%) attended very competitive, 50 students (12.4%) attended highly competitive, and 81 students (20.1%) reported that they attended the most competitive institutions. In regard to setting, 8 students (2%) reported that they attended an institution in a rural setting, 42 students (10.4%) attended an institution located in a town, 76 students (18.9%) attended an institution in a suburb, and 277 students (68.7%) reported that they attended an institution located in a city. The frequencies of institutional characteristics are presented in Table 5.

Analyses

Means and standard deviations for the study variables are presented in Table 6. Correlations among the study variables are presented in Table 7. As discussed in Chapter Three, all of the predictor variables were developed by creating scales based on existing items or scales within the 2012 MSL survey. Significant positive bivariate relationships were found between amount of mentoring and cultural climate as well as amount of mentoring and racial identity, indicating that those who endorsed higher amounts of mentoring also endorsed a more positive cultural climate and a higher collective racial esteem. There was also a significant positive bivariate relationship between cultural climate and racial identity indicating that a more positive cultural climate was associated with a higher collective racial esteem. Significant negative bivariate relationships were

Table 5. Institutional Characteristics

	Frequency	Percent	Valid Percent
Carnegie Classification			
Baccalaureate/Associate's	8	2.0	2.0
Baccalaureate	30	7.4	7.4
Master's	133	33.0	33.0
Doctoral/Research	47	11.7	11.7
Research (High/Very High)	185	45.9	45.9
Total	*403*	*100.0*	*100.0*
Selectivity			
Non-Competitive	5	1.2	1.2
Less Competitive	2	.5	.5
Competitive	95	23.6	23.6
Very Competitive	170	42.2	42.2
Highly Competitive	50	12.4	12.4
Most Competitive	81	20.1	20.1
Total	*403*	*100.00*	*100.0*
Affiliation (Religious/Secular)			
Religious	167	41.4	41.4
Secular	236	58.36	58.6
Total	*403*	*100.0*	*100.0*
Setting			
Rural	8	2.0	2.0
Town	42	10.4	10.4
Suburb	76	18.9	18.9
City	277	68.7	68.7
Total	*403*	*100.0*	*100.0*

found between cultural climate and GPA, parental educational attainment and GPA, and gender and GPA. As stated in Chapter Three, lower scores on the GPA scale indicated a higher GPA (1 = 3.50 - 4.00; 2 = 3.00 - 3.49; 3 = 2.50 - 2.99, 4 = 2.00 - 2.49; 5 = 1.99 or less). In this study, a negative bivariate relationship indicated that students who endorsed higher GPAs were more likely to be women, endorse a more positive cultural climate and had parents with a higher educational attainment. There was also a significant negative bivariate relationship between the participant's age and parental educational attainment,

indicating that the older a student, the less formal education their parent attained. There was a significant positive bivariate relationship between the amount of mentoring received from an academic or student affair's professional staff and GPA. This relationship implied that as the amount of mentoring increased with an academic or student affair's professional staff, GPA decreased.

Table 6. Means and Standard Deviations of Study Variables

	Mean	Std. Deviation
Mentoring	13.03	4.457
Cultural Climate	44.61	7.697
Racial Identity Development	78.49	13.238
Age	19.61	1.903
Parent/Guardian Educational Attainment	4.53	1.680
Gender	1.64	.481
Grades	2.40	.973

Table 7. Correlation Table of Study Variables

		Amount of Mentoring	Cultural Climate= Social Cultural Discussion and College Climate	Racial Identity Development	DEM 6: What is your age?	DEM: 14 What is the highest level of formal education obtained by any of your parent(s) or guardian(s)?	DEM 7: What is your gender?	DEM 13: What is your best estimate of your grades so far in college? (Assume 4:00=A)
Amount of Mentoring	Pearson Correlation	1	.187**	.107**	-.011	.005	.017	.001
	Sig. (1-tailed)		.000	.016	.409	.460	.364	.488
	N	403	403	403	402	403	403	403
Cultural Climate= Social Cultural Discussion and College Climate	Pearson Correlation	.187**	1	.205**	.015*	.067	-.051	-.151
	Sig. (1-tailed)	.000		.000	.380	.091	.151	.001
	N	403	403	403	402	403	403	403

Racial Identity Develop-ment	Pearson Correlation	.107**	.205**	1	-.047**	-.011	-.051	.017
	Sig. (1-tailed)	.016	.000		.172	.414	.155	.370
	N	403	403	403	402	403	403	403
DEM 6: What is your age?	Pearson Correlation	-.011	.015*	-.047**	1	-.130	-.047	.000
	Sig. (1-tailed)	.409	.380	.172		.005	.172	.499
	N	402	402	402	402	402	402	402
DEM 14: What is the highest level of formal education obtained by any of your parent(s) or guardian(s)	Pearson Correlation	.005	.067	-.011	-.130	1	-.004**	-.147
	Sig. (1-tailed)	.460	.091	.414	.005		.471	.002
	N	403	403	403	402	403	403	403
DEM 7: What is your gender?	Pearson Correlation	.017	-.051	-.051	-.047	.004**	1	-.142
	Sig. (1-tailed)	.364	.151	.155	.172	.471		.002
	N	403	403	403	402	403	403	403
DEMI 13: What is your best estimate of your grades so far in college? (Assume 4.00=A)	Pearson Correlation	.001	-.151	.017	.000	-.147	-.142	1
	Sig. (1-tailed)	.488	.001	.370	.499	.002	.002	
	N	403	403	403	402	403	403	403

**.Correlation is significant at the 0.01 level (1-tailed).
*.Correlation is significant at the 0.05 level (1-tailed).

A one-way analysis of variance (ANOVA) was performed to test for mean differences between parent's educational attainment and GPA. Results indicated that there were significant differences among the means when accounting for parent's educational attainment (F (7, 395) = 3.38, p = .002). Because the group sizes were unequal, the harmonic mean (19.134) was used.

Post hoc results using Tukey's HSD (Honestly Significant Difference) test of multiple comparisons indicated that there was a significant difference ($p < .05$) in GPA between students whose parents earned a high school diploma or GED ($M = 2.70$, $SD = 1.07$) and students whose parents earned either a bachelors degree ($M = 2.18$, $SD = .99$) or doctorate or professional degree (JD, MD, PhD) ($M = 1.97$, $SD = .74$). Students who reported that that their parents had a high school diploma or GED, had lower GPAs than those whose parents had a bachelor's degree or doctorate or professional degree. There was also a significant difference in GPA between students whose parents had some college ($M = 2.57$, $SD = 1.0$) and those whose parents had a doctorate or professional degree. Similar to those students whose parents earned a high school diploma or GED, students whose parents had some college experience but did not graduate also had lower GPAs than those students whose parents earned doctorate or professional degrees. The researcher also performed an ANOVA to analyze any mean difference between students who were categorized as first-generation (parent had less than a high school diploma or earned a high school diploma or GED) and those who were categorized as non first-generation (parents had some college through doctorate/professional degree). There were no significant differences in GPA when analyzing according to this group difference.

A one-way analysis of variance (ANOVA) was performed to analyze any mean difference between male and female students and GPA. Results indicated that there were significant mean differences in GPA between male and female students (F (1, 401) = 8.21, $p = .004$). Female participants ($M = 2.30$, $SD = .951$) were more likely to report a higher GPA than male participants ($M = 2.58$, $SD = .988$). Of the total sample, the most reported score was a 2 (GPA = 3.00-3.49), representing 39.7% of the participants,

however, a higher percentage of female students (21%) endorsed a score of 1 (GPA = 3.50-4.00) than the percentage of male students (12.3%). Frequency of GPA by gender is reported in Table 8.

Table 8. Frequency of GPA by Gender

Gender		Frequency	Percent
Male	3.50-4.00	18	12.3
	3.00-3.49	56	38.4
	2.50-2.99	45	30.8
	2.00-2.49	23	15.8
	1.99 or less	4	2.7
	Total	146	100.0
Female	3.50-4.00	54	21.0
	3.00-3.49	104	40.5
	2.50-2.99	72	28.0
	2.00-2.49	23	8.9
	1.99 or less	4	1.6
	Total	257	100.0

Research Question 1

To test the study's first hypothesis that there is a significant relationship between amount of mentoring, cultural climate, and racial identity on GPA, a hierarchical multiple regression analysis was conducted using GPA as the dependent variable. Parent's educational attainment, gender, and age were entered in the first step to control for the variance of the demographic variables in predicting GPA. As revealed in the bivariate correlation, gender, age, and parental educational attainment correlated with GPA. The predictor variables, amount of mentoring, racial identity, and cultural climate were entered in the second step. Table 9 and 10 provide a summary of the hierarchical

regression analysis for GPA. The first regression model which included the background variables (age, gender, parental education level) was significant (R^2 = .043, F (3, 398) = 5.892, p = .001), accounting for 4.3% of the variance in GPA. When adding the study variables of interest in the second step (amount of mentoring, racial identity, and cultural climate), the total model was significant (R^2 = .067, F (6, 395) = 4.701, p = .000), accounting for 6.7% of the variability in GPA. An analysis of the ΔR^2 revealed that the study variables accounted for an additional 2.4% of the variance accounted for in GPA with a Significant F Change value of 1.8% when controlling for age, gender, and parental education level. Although both regression models were significant, the only significant predictors of GPA in the final model were parental educational attainment (β = -.138, p < .01), gender (β = -.151, p < .01), and cultural climate (β = -.161, p < .01) indicating that when controlling for demographic variables more positive cultural climates predicted higher GPAs. Multicollinearity diagnostics were calculated and had appropriate ranges, meaning there were no violations of statistical assumptions (Pallant, 2005). Tolerance values ranged from .923 to .992 and Variance inflation factor (VIF) values ranged from 1.008 to 1.083. According to Pallant (2005), Tolerance is an indicator of how much of the variability of the specified independent variable is not explained by the other independent variables in the model and is calculated using the formula $1–R^2$ for each variable. If this value is less than .10, it indicates that the multiple correlation with other variables is high, suggesting the possibility of multicollinearity (Pallant, 2005). VIF is the inverse of the Tolerance value (1 divided by Tolerance). VIF values above 10 indicate multicollinearity (Pallant, 2005).

Table 9. RQ1: Hierarchical Regression Model

		B	SE B	β	Sig.
Model 1					
	Age	-.014	.025	-.026	.594
	Gender	-.292	.099	-.145*	.003
	Parent's Educational Attainment	-.087	.029	-.150*	.003
	R^2	**.043****			
Model 2					
	Age	-.011	.025	-.021	.674
	Gender	-.306	.099	-.151*	.002
	Parent's Educational Attainment	-.080	.028	-.138*	.005
	Amount of Mentoring	-.007	.011	.033	.507
	Cultural Climate	-.020	.006	-.161*	.002
	Racial Identity Development	.003	.004	.035	.485
	R^2	**.067****			
	ΔR_2	**.024**			

* $p < .01$, **$p < .001$,
Dependent Variable: GPA

Note. Grades: 1 = 3.50 – 4.00, 2 = 3.00 – 3.49, 3 = 2.50 – 2.99, 4 = 2.00 – 2.49, 5 = 1.99 or less.

Table 10. RQ1: Model Summary

Block Description N = 403	R Square	Adjusted R Square	R Square Change	F Change	Sig. F. Change
1. Background Variables	.043	.035	.043	5.892	.001**
2. Mentoring Cultural Climate Racial Identity Development	.067	.052	.024	3.403	.018**

* $p < .01$, **$p < .001$

Research Question 2

It was hypothesized that if there was a relationship between the study variables and GPA that racial identity would mediate the relationship between cultural climate and GPA. The bivariate correlation revealed that there was a significant relationship between racial identity and cultural climate (r = .205, N= 403, p < .01) and the total hierarchical regression model revealed that cultural climate was a predictor of GPA (β = -.161, p < .01), however, there was no statistically significant relationship between racial identity and GPA. Therefore, the mediator model to address this hypothesis could not be tested.

Research Question 3

To test the study's third hypothesis, that there are similarities among cultural climate, racial identity and amount of mentoring in predicting GPA for African American college students regardless of their parent's educational attainment, the researcher ran separate regression analyses for each group (less than high school diploma or GED (N = 6), high school diploma or GED (N = 53), some college (N = 78) , associates degree (N = 36), bachelors degree (N = 93), masters degree (N = 93), doctorate or professional degree (N = 36), did not know (N = 7). Age and gender were entered into the first block. Amount of mentoring, cultural climate, and racial identity were entered into the second block. The results of the separate hierarchical regression analyses revealed that the first model (R^2 = .103, F (2, 75) = 4.294, p = .017) and the total regression model (R^2 = .182, F (5, 72) = 3.196, p = .012) were significant for those students who had any parent that had some college experience. Further analysis revealed that gender (β = -.351, p < .01) and cultural climate (β = -.267, p < .05) were the only significant predictors of GPA for this group. In addition to students with any parent who had some college, the total

regression model was significant for students with any parent who earned a bachelors degree (R^2 = .143, ΔR^2 = .130, F (5, 87) = 2.895, p = .018). For this group, cultural climate (β = -.341, p < .01) was the only significant predictor of GPA. The hierarchical regression analyses for the other groups did not yield significant results. An a priori power analysis for this hierarchical regression model revealed that a minimum sample size of 78 yields sufficient power to detect a medium effect size (Soper, 2015), therefore the results for those whose parents had less than a high school diploma, a high school diploma or GED, associates degree, or doctorate/professional degree should be interpreted with caution. Table 11 represents the means and standard deviations of the study variables by parent's educational attainment. Table 12 and 13 represent the regression model and summary.

Table 11. RQ3: Means and Standard Deviations by Parent's Educational Level

Parent's Educational Level		**Mean**	**Standard Deviation**
Less than high school diploma or less than a GED (N = 6)	Grades	1.83	.753
	Age	20.50	1.975
	Gender	1.67	.516
	Mentoring	12.67	4.033
	Cultural Climate	48.17	7.360
	Racial Identity Development	81.83	7.521
High school diploma or a GED (N = 53)	Grades	2.70	1.067
	Age	20.04	2.766
	Gender	1.58	.497
	Mentoring	13.64	4.707
	Cultural Climate	43.02	7.479
	Racial Identity Development	78.25	13.205

Some college (*N* = 78)	Grades	2.56	1.001
	Age	19.90	3.394
	Gender	1.69	.465
	Mentoring	12.22	4.503
	Cultural Climate	44.27	7.006
	Racial Identity Development	77.22	13.206
Associates degree (*N* = 36)	Grades	2.61	.964
	Age	19.42	.649
	Gender	1.64	.487
	Mentoring	13.17	4.931
	Cultural Climate	44.47	7.516
	Racial Identity Development	80.00	13.615
Bachelors degree (*N* = 93)	Grades	2.18	.988
	Age	19.45	.651
	Gender	1.65	.481
	Mentoring	13.63	4.283
	Cultural Climate	45.33	7.739
	Racial Identity Development	79.59	12.932
Masters degree (*N* = 93)	Grades	2.42	.889
	Age	19.42	.577
	Gender	1.58	.496
	Mentoring	12.84	4.382
	Cultural Climate	44.52	8.106
	Racial Identity Development	78.28	12.788
Doctorate or professional degree (ex. JD, MD, PhD) (*N* = 36)	Grades	1.97	.736
	Age	19.17	.655
	Gender	1.69	.467
	Mentoring	13.06	3.971
	Cultural Climate	44.47	8.732
	Racial Identity Development	78.28	15.395
Don't know (*N* = 7)	Grades	2.43	.976
	Age	20.14	1.345
	Gender	1.71	.488
	Mentoring	12.29	5.314
	Cultural Climate	50.86	3.848
	Racial Identity Development	71.57	16.501

Table 12. RQ3: Regression Model by Parent's Education Level

		Model 1				Model 2			
Parent's Education Level	Variable	**B**	**SE B**	***β***	Sig.	**B**	**SE B**	***β***	Sig.
Less than high school diploma or less than a GED	Age	.013	.221	.035	.956	-.054	.000	-.143	.
	Gender	-.240	.845	-.165	.795	1.516	.000	1.040	.
	R^2 = .031								
	Mentoring					.219	.000	1.174	.
	Cultural Climate					-.028	.000	-.271	.
	Racial Identity Development					.195	.000	1.946	.
	R^2 = 1.000								
	ΔR^2 = .969								
High school diploma or a GED	Age	-.071	.054	-.185	.190	-.068	.056	-.177	.228
	Gender	-.045	.298	-.021	.880	-.029	.308	-.013	.926
	R^2 = .035								
	Mentoring					-.005	.032	-.020	.889
	Cultural Climate					-.021	.021	-.150	.316
	Racial Identity Development					.008	.012	.101	.506
	R^2 = .059								
	ΔR^2 = .024								
Some college	Age	-.005	.033	-.018	.873	-.002	.032	-.008	.944
	Gender	-.695	.238	-.323	.005	-.756	.240	-.351**	.002
	R2 = .103*								
	Mentoring					.031	.025	.141	.224
	Cultural Climate					-.038	.016	-.267*	.019
	Racial Identity Development					.002	.009	.027	.812

	R^2 = .182*								
	∆R2 = .079*								
Associates degree	Age	-.436	.249	-.294	.089	-.394	.258	-.265	.137
	Gender	.188	.332	.095	.575	.243	.363	.123	.508
	R2 = .088								
	Mentoring					-.016	.034	-.083	.642
	Cultural Climate					-.002	.025	-.018	.925
	Racial Identity Development					-.013	.013	-.182	.345
	R^2 = .136								
	∆R^2 = .048								
Bachelors degree	Age	.021	.159	.014	.893	.062	.152	.041	.684
	Gender	-.231	.216	-.113	.287	-.192	.207	-.093	.358
	R2 = .013								
	Mentoring					-.013	.024	-.056	.596
	Cultural Climate					-.044	.013	-.341**	.002
	Racial Identity Development					.003	.008	.042	.674
	R^2 = .143*								
	∆R^2 = .130*								
Masters degree	Age	.204	.160	.133	.204	.245	.164	.159	.138
	Gender	-.234	.186	-.131	.210	-.253	.189	-.141	.184
	R2 = .037								
	Mentoring					.025	.022	.123	.266
	Cultural Climate					-.007	.012	-.063	.576
	Racial Identity Development					.008	.008	.120	.273
	R^2 = .061								
	∆R^2 = .024								

Doctorate or Prof. degree (ex. JD, MD, PhD)	Age	.118	.194	.105	.547	.193	.191	.172	.319
	Gender	-.330	.272	-.210	.233	-.616	.299	-.391*	.048
	R^2 = .047								
	Mentoring					.051	.037	.272	.178
	Cultural Climate					.004	.016	.046	.808
	Racial Identity Development					-.013	.008	-.282	.118
	R^2 = .188								
	ΔR^2 = .140								
Don't know	Age	.167	.323	.230	.633	-.658	.912	-.907	.602
	Gender	-.833	.890	-.417	.402	-10.095	11.648	-5.048	.545
	R^2 = .212								
	Mentoring					-.008	.171	-.046	.969
	Cultural Climate					-.852	.862	-3.358	.504
	Racial Identity Development					-.127	.229	-2.156	.677
	R^2 = .781								
	ΔR^2 = .568								

Dependent Variable: GPA
*p < .05, **p < .01, ***p < .001

Table 13. RQ3: Model Summary by Parent's Education Level

Parent's Education Level		R Square	Adjusted R Square	R Square Change	F Change	Sig. F Change
Less than high school diploma or less than a GED *N* = 6	Model 1	.031	-.616	.031	.047	.954
	Model 2	1.000		.969		
High school diploma or a GED *N* =	Model 1	.035	-.004	.035	.898	.414
	Model 2	.059	-.041	.024	.402	.752
Some college *N* =	Model 1	.103	.079	.103	4.294	.017*
	Model 2	.182	.125	.079	2.313	.083*
Associates degree *N* =	Model 1	.088	.033	.088	1.594	.218
	Model 2	.136	-.008	.048	.555	.649
Bachelors degree *N* =	Model 1	.013	-.009	.013	.597	.553
	Model 2	.143	.093	.130	4.382	.006*
Masters degree *N* =	Model 1	.037	.016	.037	1.724	.184
	Model 2	.061	.007	.024	.754	.523
Doctorate or professional degree (ex. JD, MD, PhD) *N* =	Model 1	.047	-.010	.047	.821	.449
	Model 2	.188	.052	.140	1.728	.182
Don't know *N* =	Model 1	.213	-.181	.213	.540	.620
	Model 2	.781	-.315	.568	.864	.639

*p < .05, **p < .01

Research Question 4

When testing the study's fourth hypothesis, that there are similarities among the study variables in predicting GPA regardless of gender due to shared racial group membership, separate hierarchical regression analyses were performed for men and

women. There were 256 women and 146 men in the analysis. A priori analysis yielded a minimum of 78 participants to detect a medium effect size for each hierarchical regression model (Soper, 2014). In both regression models, age and parent's educational attainment were entered into the first block and the study variables (amount of mentoring, cultural climate, and racial identity) were entered into the second block, with GPA as the dependent variable. The results of the separate hierarchical regression analyses revealed that the first model (R^2 = .031, F (2, 253) = 4.084, p = .018) and the total regression model (R^2 = .086, F (5, 250) = 4.724, p = .000) were significant for women but not for men. The total regression model accounted for 8.6% of the variability in GPA for women. Further analysis of the standardized coefficients revealed that parent's educational attainment (β = -.135, p < .05) and cultural climate (β = -.230, p = .01) were the only significant predictors of GPA for women. Tolerance values ranged from .913 to .965 and VIF values ranged from 1.036 to 1.095 indicating no multicollinearity. Table 14 represents the means and standard deviations of the study variables by gender. Table 15 and 16 represent the regression model and summary.

Table 14. Means and Standard Deviations of Variables by Gender

Gender	Variable	Mean	Std. Deviation
Male	Grades	2.58	.988
N = 146	Parent/Guardian Educational Attainment	4.53	1.678
	Mentoring	12.92	4.663
	Cultural Climate	45.13	7.097
	Racial Identity Development	79.38	14.245
Female	Grades	2.30	.951
N = 257	Parent/Guardian Educational Attainment	4.52	1.684
	Mentoring	13.09	4.344
	Cultural Climate	44.31	8.016
	Racial Identity Development	77.98	12.632

Table 15. RQ4: Regression Model by Gender

Gender			**B**	**SE B**	***β***	**Sig.**
Male	Model 1					
		Age	.015	.034	.037	.656
		Parent/Guardian Educational Attainment	-.078	.049	-.133	.113
		R^2	**.021**			
	Model 2					
		Age	.012	.034	.030	.718
		Parent/Guardian Educational Attainment	-.065	.050	-.110	.198
		Mentoring	.028	.018	.131	.126
		Cultural Climate	-.005	.012	-.036	.671
		Racial Identity Development	-.002	.006	-.024	.776
		R^2	**.038**			
		ΔR^2	**.017**			
Female	Model 1					
		Age	-0.057	.040	-.089	.153
		Parent/Guardian Educational Attainment	-0.092	.035	-.164**	.009
		R^2	**.031***			
	Model 2					
		Age	-0.054	.039	-.085	.166
		Parent/Guardian Educational Attainment	-0.076	.035	-.135*	.030
		Mentoring	-0.01	.014	-.044	.484
		Cultural Climate	-0.027	.008	-.230***	.000
		Racial Identity Development	0.006	.005	.078	.217
		R^2	**.086*** **			
		ΔR^2	**.055**			

Dependent Variable: GPA
*p < .05, **p < .01, ***p < .001

Table 16. RQ4: Model Summary by Gender

Gender	Block Description	R Square	Adjusted R Square	R Square Change	F Change	Sig. F. Change
Male *N* = 146	1. Background Variables	.021	.007	.021	1.510	.224
	2. Mentoring Cultural Climate Racial Identity Development	.038	.003	.017	.827	.481
Female *N* = 256	1. Background Variables	.031	.024	.031	4.084	.018*
	2. Mentoring Cultural Climate Racial Identity Development	.086	.068	.055	5.020	.002***

*$p < .05$, **$p < .01$, ***$p < .001$

Additional Analyses

Bivariate correlations and a second hierarchical multiple regression analysis were conducted to examine whether the demographic variables and the study variables when delineating the four subscales of racial identity development (collective racial esteem) accounted for any significant variability in predicting GPA. When conducting these analyses the total sample size changed to 399 participants based on the total number of respondents that answered all items. The alpha coefficient for the CRE: Membership scale was .67; .78 for the CRE: Private subscale; .77 for the CRE: Public subscale; and .72 for the CRE: Identity subscale. These alpha coefficients are similar to previous research on African American populations measuring collective racial esteem (Anthony, 2010; Dugan & Associates, 2012). An analysis of bivariate correlations revealed that

amount of mentoring was significantly correlated with the CRE - membership subscale; the CRE - private subscale was significantly correlated with the other CRE subscales (membership, identity salience, and public); CRE - public had a significant negative correlation with gender indicating that men rated public racial esteem higher than women; CRE - identity salience was significantly correlated with CRE - membership; and CRE - membership was significantly correlated with cultural climate. Table 19 shows the correlations between these variables. As in the first hierarchical multiple regression analysis, parent's educational attainment, gender, and age were entered in the first step to control for the variance accounted for of the demographic variables on the dependent variable, GPA. Amount of mentoring, cultural climate and each of the four CRE subscales (private, public, identity salience, and membership) were entered in the second step with GPA as the dependent variable.

The first regression model which included the background variables (age, gender, parental education level) accounted for 4.0% of the variability in GPA. When adding the study variables of interest in the second step (amount of mentoring, cultural climate, four subscales of collective racial esteem), the total model accounted for 6.5% of the variability in GPA. An analysis of the ΔR^2 revealed that the study variables accounted for an additional 2.5% of the variance accounted for in GPA with a Significant F Change value of 11.8%. Further analysis of the ANOVA table revealed that the first model was significant [F (3, 395) = 5.512, p = .001] and the model as a whole (background variables plus study variables) was significant [F (9, 389) = 2.995, p = .002]. Similar to the first regression model which used the cumulative racial identity score, an examination of the

final regression model delineating the four subscales of collective racial esteem revealed that the only significant predictors of GPA were parental educational attainment (β = -.136, $p < .01$), gender (β = -.140, $p < .01$), and cultural climate (β = -.161, $p < .01$). The means and standard deviations of the variables incorporating the separate CRE subscales are represented as an aggregate in Table 17 and by gender in Table 18. Tables 20 and 21 represent the regression model and summary.

Table 17. Means and Standard Deviations: CRE Scales (N=399)

	Mean	Standard Deviation
Grades (GPA)	2.40	.974
Parent/Guardian Educational Attainment	4.52	1.679
Age	19.61	1.907
Gender	1.64	.482
Mentoring	13.06	4.459
Cultural Climate	44.65	7.633
CRE: Private	5.8697	1.13099
CRE: Public	3.8703	1.30480
CRE: Identity Salience	4.4185	1.38842
CRE: Membership	5.4881	1.11184

Table 18. Means and Standard Deviations by Gender: CRE Subscales

DEM 7: What is your gender?		Mean	Standard Deviation
Male	Grades (GPA)	2.58	.991
	Age	19.72	2.468
N = 145	Parent/Guardian Educational Attainment	4.54	1.679
	Mentoring	12.95	4.667
	Cultural Climate	45.14	7.119
	CRE: Private	5.8414	1.21900
	CRE: Public	4.2741	1.24105
	CRE: Identity Salience	4.2879	1.39329
	CRE: Membership	5.4552	1.16282
Female	Grades	2.30	.952
	Age	19.55	1.497
N = 254	Parent/Guardian Educational Attainment	4.51	1.682
	Mentoring	13.13	4.344
	Cultural Climate	44.37	7.912
	CRE: Private	5.8858	1.07971
	CRE: Public	3.6398	1.28639
	CRE: Identity Salience	4.4931	1.38284
	CRE: Membership	5.5069	1.08356

Table 19. Bivariate Correlations: CRE Subscales

		Amount of Mentoring	Cultural Climate = Social Cultural Discussion and College Climate	CRE: Private	CRE: Public	CRE: Identity Salience	CRE: Membership	DEM6: What is your age?	DEM7: What is your gender?	DEM13: What is your best estimate of your grades so far in college? (Assume 4.00 = A)	DEM14: What is the highest level of formal education obtained by any of your parent(s) or guardian(s)?
Amount of Mentoring	Pearson Correlation	1	.187**	.075	.011	.092	.108*	-.011	.017	.001	.005
	Sig. (2-tailed)		.000	.134	.819	.067	.031	.819	.728	.976	.919
	N	403	403	402	402	400	402	402	403	403	403
Cultural Climate = Social Cultural Discussion and College Climate	Pearson Correlation	.187**	1	.236**	.144**	-.020	.181**	.015	-.051	-.151**	.067
	Sig. (2-tailed)	.000		.000	.004	.684	.000	.761	.303	.002	.182
	N	403	403	402	402	400	402	402	403	403	403
CRE: Private	Pearson Correlation	.075	.236**	1	.214**	.362**	.620**	-.001	.020	-.013	-.012
	Sig. (2-tailed)	.134	.000		.000	.000	.000	.977	.686	.797	.817
	N	402	402	402	402	400	402	401	402	402	402
CRE: Public	Pearson Correlation	.011	.144**	.214**	1	-.088	.093	-.072	-.233**	.044	.061
	Sig. (2-tailed)	.819	.004	.000		.078	.064	.149	.000	.377	.225
	N	402	402	402	402	400	402	401	402	402	402
CRE: Identity Salience	Pearson Correlation	.092	-.020	.362**	-.088	1	.455**	-.065	.071	.009	-.007
	Sig. (2-tailed)	.067	.684	.000	.078		.000	.194	.155	.865	.892
	N	400	400	400	400	400	400	399	400	400	400
CRE: Membership	Pearson Correlation	.108*	.181**	.620**	.093	.455**	1	.010	.026	-.011	-.054
	Sig. (2-tailed)	.031	.000	.000	.064	.000		.837	.598	.829	.278
	N	402	402	402	402	400	402	401	402	402	402
DEM6: What is your age?	Pearson Correlation	-.011	.015	-.001	-.072	-.065	.010	1	-.047	.000	-.130**
	Sig. (2-tailed)	.819	.761	.977	.149	.194	.837		.344	.998	.009
	N	402	402	401	401	399	401	402	402	402	402
DEM7: What is your gender?	Pearson Correlation	.017	-.051	.020	-.233**	.071	.026	-.047	1	-.142**	-.004
	Sig. (2-tailed)	.728	.303	.686	.000	.155	.598	.344		.004	.941
	N	403	403	402	402	400	402	402	403	403	403
DEM13: What is your best estimate of your grades so far in college? (Assume 4.00 = A)	Pearson Correlation	.001	-.151**	-.013	.044	.009	-.011	.000	-.142**	1	-.147**
	Sig. (2-tailed)	.976	.002	.797	.377	.865	.829	.998	.004		.003
	N	403	403	402	402	400	402	402	403	403	403
DEM14: What is the highest level of formal education obtained by any of your parent(s)	Pearson Correlation	.005	.067	-.012	.061	-.007	-.054	-.130**	-.004	-.147**	1
	Sig. (2-tailed)	.919	.182	.817	.225	.892	.278	.009	.941	.003	
	N	403	403	402	402	400	402	402	403	403	403

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 20. Regression Model: CRE Subscales

	Model 1				Model 2			
	B	**SE B**	***β***	**Sig.**	**B**	**SE B**	***β***	**Sig.**
Parent's educational attainment	-.085	.029	-.146**	.004	-.079	.029	-.136**	.007
Age	-.014	.025	-.028	.579	-.010	.025	-.020	.684
Gender	-.285	.100	-.141**	.004	-.284	.103	-.140**	.006
	R^2 = .040* **							
Mentoring					.007	.011	.034	.498
Cultural Climate					-.020	.007	-.161**	.002
CRE: Private					.010	.056	.011	.864
CRE: Public					.031	.040	.041	.437
CRE: Identity Salience					.009	.040	.012	.829
CRE: Membership					-.006	.058	-.007	.921
	R^2 = .065**							
	ΔR^2 = .025**							

Dependent Variable: Grades
*p < .05, **p < .01, ***p < .001

Table 21. Model Summary: CRE Subscales

Sample	**Block Description**	**R Square**	**Adjusted R Square**	**R Square Change**	**F Change**	**Sig. F. Change**
N = 399	1. Background Variables	.040	.033	.040	5.512	.001***
	2. Mentoring Cultural Climate CRE: Private CRE: Public CRE: Identity Salience CRE: Membership	.065	.043	.025	1.707	.118**

* p < .05, **p < .01, ***p < .001

CHAPTER V

DISCUSSION

The purpose of the dissertation study was to identify non-academic predictors of academic success for African American college students attending four-year colleges and universities. These predictors included demographic, environmental, and psychological variables. Specifically, the study examined the role of mentoring, cultural climate, and racial identity development in predicting GPA. Furthermore, the study examined the influence of parental educational attainment as well as gender in their relation to the study variables. This chapter discusses the implications of the results presented in Chapter Four. First, the findings of the main and supplemental analyses are discussed and their relation to previous research. Next, theoretical implications of the study are discussed. Following, implications for practice and future research are discussed. Next, study limitations are examined. The section ends with a conclusion reviewing the dissertation study.

Findings

The first research question asked: What is the influence of cultural climate, including experiences of discrimination and sociocultural discussions, collective racial esteem, and mentoring relationships on African American undergraduate GPA? Results revealed that cultural climate significantly predicted academic achievement for African American college students above and beyond gender or parent's educational attainment leading to a rejection of the null hypothesis that there is no significant relationship

between the predictor variables and GPA. The more African American students experienced their campuses as warm and welcoming, the better they performed academically. In this study, students who endorsed their campuses as having a more positive cultural climate were more likely to feel a sense of belonging to their campus, perceive a non-discriminatory climate, participate in discussions with culturally diverse students, and have discussions about issues related to diversity and social justice. This finding is similar to other studies identifying perceptions of warmer campus climates with academic achievement for African American students (Solórzano, Ceja, & Yosso, 2000). However, it is different from Fischer's (2007) study that found a negative racial climate had no significant relationship with grades for African American college students. Although cultural climate was a significant predictor of GPA, mentoring and racial identity were not significant predictors. The absence of a significant relationship between mentoring and academic achievement for African American college students is similar to Strayhorn's (2008) finding that the availability of a support person was not significantly correlated to GPA. However, it is different from Tracey and Sedlacek's (1989) finding that academically successful minority college students have the presence of a strong support person that comes in many forms and provides different levels of support. Because the study analyzed the frequency of contact with various types of mentors, it is worth considering whether or not there would be a significant relationship to academic success if mentors were faculty and staff versus peer mentors or community members, however previous research has only supported low significant correlations between the amount of mentoring by faculty and staff and GPA for African American college students (Campbell & Campbell, 1997).

Although the amount of mentoring a student received from various types of mentors did not significantly predict academic achievement, its positive correlation with cultural climate suggests that frequent contacts with mentors who are invested in the student's growth and development are related to the student experiencing a sense of belonging and a perception that his or her campus is more welcome and open to issues of diversity. This finding demonstrates the importance of African American students interacting with supportive staff and peers on campus in order to feel connected to their university community. In fact, one study found that African American college students felt less socioculturally alienated when they had a supportive and accessible faculty member who imparted a sense of academic and personal worth to students (Loo & Rolison, 1986). When African American students feel connected to their universities they have positive educational and psychological outcomes (Hurtado, Milem, Clayton-Pederson, & Allen, 1998). This is important for African American college retention and persistence.

In addition to cultural climate, mentoring had a significant positive relationship to racial identity suggesting that students who have more frequent interactions with mentors also have a more positive racial identity. Further examination of the subscales, revealed that the membership subscale had the most significant correlation with mentoring. These findings support emerging research regarding the relationship between racial identity and mentoring for African Americans. For example, one study measuring racial identity found that private regard, public regard, and race centrality were associated with mentoring and that mentoring predicted increased private regard and centrality for African American adolescents (Hurd, Sánchez, Zimmerman, & Caldwell, 2012). Similar

to the dissertation study, Awad (2007) also found that racial identity did not predict GPA for African American college students. Awad used the Cross Racial Identity Scale (CRIS) which examines constructs from Cross's (1991) revised nigrescence theory. Further research is needed to explore the influence of racial identity on academic achievement for African American college student populations, perhaps using other measurements of racial identity, particularly because subscales of racial identity have been linked to academic achievement in African American adolescents using the Racial Identity Attitude Scale (RIAS) (Parham & Helms, 1981) which also measures attitudes related to Cross' psychological nigrescence theory (Witherspoon, Speight & Thomas, 1997) and the Multidimensional Inventory of Black Identity (MIBI) (Sellers et al., 1998) which measures constructs of the Multidimensional Model of Racial Identity (Hurd et al., 2012).

In the current study racial identity also had a significant positive correlation with cultural climate, suggesting that these two variables are also interrelated for African American college students. When analyzing the specific collective racial esteem scales, the membership scale had the most significant correlation with cultural climate. Although not examined in this particular way a stronger racial or ethnic identity helps minimize the effects of negative beliefs perpetuated in society (Smith & Sylva, 2011). It is possible that participants in this study have a more positive racial esteem and enough positive connections to mentors that contribute to them feeling more connected to their schools. Because of its significant correlation to the membership subscale it is also possible that students who experience the cultural climate of their campus as warm and welcoming also feel good about being African American because they are supported on

campus. For example, these students may participate in campus organizations that are geared specifically toward African Americans and feel that they are contributing members to these organizations. Because racial identity did not have a significant correlation with GPA, this is an acceptance of the null hypothesis for the second research question that racial identity mediates the relationship between cultural climate and GPA. Although racial identity did not predict GPA, this finding is important because it demonstrates the importance of cultural climate for African American student success independent of one's racial identity. Because the sample was mostly representative of students who attended PWIs, the research findings demonstrate that campus environmental factors were more salient for students in their relationship to grades rather than their collective racial esteem.

When analyzing for similarities in the predictor variables in their relationship to GPA among students whose parents had varying levels of educational attainment for the third research question, the study found that for students whose parents had some college experience, gender and cultural climate were the only significant predictors of GPA. This finding was similar for students whose parents earned a bachelors degree. For those students, cultural climate significantly predicted GPA. For the other students whose parents had other levels of education, none of the variables significantly predicted GPA. These findings are a rejection of the null hypothesis that there is a similar relationship between the predictor variables and GPA among students whose parents have different levels of educational attainment. Based on these results there is an indication that for parents who have at least some college experience or a bachelor's degree, college environmental factors play an important role in their college student's academic success.

However, these finding also suggest that for African American students whose parents have education beyond a bachelor's degree, cultural climate is less of significance for them. These students are likely to have parents with higher earnings than those with bachelors degrees or less (U.S. Census Bureau, 2010), giving them more access to schools with college preparatory curriculums and more exposure to academic preparation strategies. These students may have a higher academic self-efficacy that counters the academic effects of a negative cultural climate.

Research has varied with regard to the influence of one's parent's educational attainment on academic achievement. The current study did not find any of the predictor variables significant for students whose parents earned a high school diploma or less. There is a growing body of research on first-generation students and the risk factors associated with their academic achievement, college retention and persistence (Purswell, Yazedjian, & Toews, 2008). One study examining differences between first-generation students and continuing-generation college students representing different racial/ethnic backgrounds found that those students whose parents did not have four-year college degrees have a difficult time adjusting to middle-class values of independence (i.e., paving one's own path, expressing oneself) which is a prominent culture reflected in American universities (Stephens, Fryberg, Markus, Johnson, & Covarrubias, 2012). Stephens and colleagues found that students from working-class backgrounds adjusted better to interdependent cultures (i.e., being responsive to others, connecting to and working with others) which contributed to better academic performance in college. Further research that includes cultural variables related to social class may be beneficial for understanding academic achievement for first-generation African American students

as these intersecting identities may both be salient for their academic success. Although the predictor variables were not significant for all students whose parents had varying levels of educational attainment, this study supports findings that varying levels of parental educational attainment impact academic achievement (Pascarella et al., 2004). More research is needed on specific factors related to African American college students when considering this characteristic.

Results of the fourth research question that the predictor variables had a similar relationship to GPA regardless of gender indicated that this was the case for racial identity and amount of mentoring but not for cultural climate. When disaggregating the data, analyses revealed that parent's educational attainment and cultural climate were predictors of GPA for African American female college students but not for their male peers. Furthermore, the effect of cultural climate on GPA for female students was greater than when analyzing the data collectively. This supports other findings that gender differences exist for African American women and men and how they respond to their college environments (Chavous, Harris, & Rivas, 2004). This is an important finding as the female participants also reported lower levels of public racial esteem than their male peers when examining the separate racial identity scales. This suggests that African American female college students do not only perceive cultural climate based on their racial group membership but from their intersecting identity of being African American and female, two identities that have been historically discriminated against and oppressed. It is possible that for African American female students to perform better academically, cultural climate not only implies experiencing a non-discriminatory climate based on race but also based on gender.

Although cultural climate emerged as a significant predictor for female college students when controlling for parent's educational attainment, it is important to recognize that although its effect was reduced, African American women college students' academic achievement is significantly influenced by their parent's education, such that the higher degree of one's parent's educational attainment, the higher the student's grades. This may be influenced by direct or indirect encouragement from parents to earn higher grades for access to graduate school and other careers providing economic advancement opportunities. As stated previously, this also may be due to more access to college-preparatory curriculum, academic self-efficacy, and first-hand knowledge about college academic expectations. The absence of any of the study variables predicting GPA for African American males when separated from women is surprising given that the total model was significant and cultural climate predicted GPA for all students in the first regression analysis. This may explain the increase in the effect of cultural climate when examining its relationship to GPA for women. The finding that mentoring relationships was not a significant predictor of academic success for African American males in this study is similar to Strayhorn's (2007) finding that supportive relationships did not predict GPA for African American males. These research findings are mixed as other studies have found that mentoring is significant to the college success of African American male college students (Palmer & Gasman, 2008).

The study also found that female participants had higher GPAs than male participants. This demonstrates the importance of research and university programming designed to understand and meet the academic needs of African American students in general and for specific populations, particularly because African American women are

persisting through college and graduating at higher rates that their male peers (NCES, 2011). Additionally, there were significant differences in GPA for students whose parents earned a high school diploma, GED or less and those whose parents earned a bachelors degree or doctorate/professional degree. As addressed earlier, students whose parents have higher educational attainment have more access to resources that can help prepare their students for college success. Although there were differences based on educational attainment, when comparing the data based on students who were classified as first-generation and those who were non first-generation, the differences in GPA were insignificant suggesting that as a group, the first-generation students in this sample performed just as well academically as their peers whose parents have college experience. This finding suggests that first-generation students in the study sample may have had similar academic abilities or other characteristics that contribute to academic achievement that were not examined in this study. The results of the separate regression analyses support previous findings that meaningful differences among subpopulations are lost when analyses are conducted with aggregated data (Dugan et al., 2012; Pascarella, 2006).

Relationship to Previous Theory

Students who have low GPAs are at a higher risk for attrition. This study shows that cultural climate has a significant relationship to GPA for African American students, even when controlling for any influence of their gender or their parent's educational attainment. In this study cultural climate consisted of a sense of belonging, opportunities for sociocultural discussions, and low experiences of discrimination. Although this study did not delineate between which of these aspects of cultural climate were most

significant, its overall significance is important. These findings are similar to other studies that have found cultural climate significantly related to academic achievement (Guiffrida, 2006).

The study results support Astin's (1999) I-E-O model which posits that student characteristics and environmental characteristics influence educational outcomes; however it did not support the theory that more student involvement increases educational outcomes as more interactions with mentors did not increase GPA. The results also support aspects of Tinto's (1993) theory that takes into account the influence of background characteristics and emphasizes how institutional characteristics can either limit or enhance college student development, as parent's educational attainment and cultural climate had a significant impact on GPA. However, the significance of cultural climate supports cultural critiques of Tinto's theory which also emphasizes the importance of social and academic integration for students to persist in college. Critics of Tinto's theory state that it is not comprehensive of the needs of minority students and that integration implies that students ignore their former cultures to fit into the dominant culture (Guiffrida, 2006). Guiffrida suggests that studies of academic achievement for minority college students integrate more cultural contexts which were supported by the results of this study.

Implications for Practice and Future Research

The results of this study highlight the role that colleges and universities have in providing a welcoming cultural climate for African American students to perform well academically. This is relevant in interactions with campus faculty and staff as well as with peers. This translates across institutions that vary in size, setting, selectivity, and

religious affiliation. Although, this study did not compare PWIs to HBCUs it is possible that this translates across both institution types as students are also likely to embrace the cultural climate of an HBCU as more positive, assuming that they experience a sense of belonging, perceive their campus as non-discriminatory, and have opportunities to discuss diversity and social justice with their peers. Although one common assumption is that African American students attending HBCUs are immune to experiencing discrimination, previous research findings indicate that this is not the case (Chavous, Harris & Rivas, 2004). According to Rodgers and Summers (2008), previous researchers (Hamilton, 2006; Hurtado et al., 1998) have proposed four ways for colleges and universities to assess their cultural climate which includes a consideration of the following:

> (1) institutions' historical legacy of inclusion or exclusion; (2) the numbers of different groups on campus (e.g., how many students of a particular race or ethnicity, gender, sexual orientation, etc.); (3) perceptions and beliefs that people have about institutions' climates; and (4) the extent to which institutional structures and individual personnel are contributing to a positive climate. (p. 176)

These types of considerations have important implications for policy and practice, particularly at PWIs.

This study also has implications for the importance of continuous diversity training for all faculty and staff as well as university programming for students geared toward understanding diversity. If African American students perceive faculty and staff as being warm and welcoming to cultural differences, this may contribute to more positive faculty-student interactions. Educators may convey a perception of openness by providing opportunities for students to discuss issues related to diversity as part of class discussions. Several colleges require that their students take seminars geared toward

improving academic performance such as study skills, stress management, and the consequences of drug and alcohol use. Because the dissertation study variables accounted for a small amount of variance in GPA, there is a need for these workshops, however, there is also a need to incorporate topics related to diversity so that students who come from various backgrounds understand one another's culture and some of the issues and concerns of diverse communities. For example, African American college students who are emotionally impacted by various societal and systemic inequalities negatively impacting African Americans may benefit from having an opportunity to talk to other students, faculty or staff on campus about their concerns without feeling socially isolated and misunderstood. Ancis, Sedlacek, and Mohr (2000), suggest that university counselors have a unique opportunity to provide programming that focuses on creating a safe and welcoming campus climate where "biases are challenged and differences are understood and appreciated" (p. 184). Furthermore, other research has found that maximizing cross-racial interaction and encouraging ongoing discussions about race are educational practices that benefit all students (Chang, 1996).

The results of this research also have implications for future research on African American college student achievement and retention. Further research examining how the study variables relate specifically to retention and persistence for this population are necessary in higher education and psychological research. Additionally, continued research examining the needs of African American college students that captures quantitative information is important, however, there is a richness of qualitative data that cannot be captured when analyzing in this format, particularly as it relates to understanding the college experience from the African American college student

perspective. Future research implementing these methods is important considerations for this population. This study also has implications for continued research analyzing different indicators of academic achievement for male and female college students. Additionally, more research on the influence of the study variables and academic achievement for African American students who are transgender are necessary as this is also a population who may be at risk for experiencing their campuses as less welcoming due to potential discrimination because of their intersecting racial and gender identity. Lastly, more research examining how parental educational attainment of both parents impacts academic achievement is needed. Pascarella et al. (2004) found that first generation students had significantly lower grades by their third year of college than students who had two parents with bachelors degrees or higher. The current study analyzed data based on the highest educational attainment of any parent so there was no way to measure whether both parents had the same level of education.

Study Limitations

As with all research, there were limitations in the dissertation study. First, although the sample size was sufficient for the first hierarchical regression model, when analyzing predictors of GPA based on parent's educational attainment, some of the groups may have been too small to detect a relationship. Any groups that did predict GPA with a small sample size may not be generalizable to the population. Although significant, the study variables explained a small amount of variance in GPA, suggesting that there are other factors that contribute to college grades. Academic abilities, academic self-efficacy, achievement motivation (Robbins, Lauver, Le, Davis, Langley, & Carlstrom, 2004), and academic self-concept (Awad, 2007) are also important predictors

of GPA and should be taken into consideration for future studies of African American college student populations. Another limitation of GPA is that it was a self-reported measure. Self-reported measures of GPA should be observed cautiously as they may reflect social desirability (Kuncel, Credé, & Thomas, 2005).

Although a widely used instrument with over 400 scales and variables, the study was limited to using variables that were in the 2012 MSL survey to predict GPA, limiting the researcher's ability to analyze racial identity using a different measure since it was an archived sample. In spite of this limitation, the sample size was more than sufficient for the data analysis procedure (Soper, 2014) employed in the dissertation study and measures of collective racial esteem are reliable for African American college student populations (Anthony, 2010; Dugan & Associates, 2012).

Another limitation was the researcher's adapted use of the I-E-O model as a guide to analyzing the data. Racial identity was entered as an environmental variable; however it is possible that the researcher could have entered it as an input variable to reflect personal characteristics of the student. Additionally, this variable could have been entered in its own separate block. Because the study did not employ a strict adherence to the I-E-O model and racial identity was an exploratory variable, the researcher entered it in the second block. Other researchers that have studied collective racial esteem and its relation to personal and educational outcomes using Astin's I-E-O model have entered collective racial esteem in hierarchical regression analyses as a separate block (Dugan et al., 2012; Lee, 2011), indicating a need for more research incorporating psychological constructs on educational and personal outcomes for college students.

Another limitation of the study is whether the collective racial esteem is an accurate measure of racial identity. Several models of racial identity development identify multiple scales of racial identity that may or may not be interdependent (Cokley, 2007; Sellers et al., 1998). This study analyzed a collective view of racial identity that may be measuring different constructs than previous racial identity measures. More research is needed to analyze the reliability of collective racial esteem with other measures of racial identity. The current study employed a cumulative score for collective racial esteem. There is enough research to suggest that researchers could benefit from looking at the separate subscales when analyzing their impact based on race (Luhtanen & Crocker, 1992); however the cumulative scale was a reliable measure for the study sample. The researcher conducted a follow-up analysis to examine if using the separate subscales predicted GPA; however none of the subscales significantly predicted GPA which was the same result when using the cumulative scale.

Another limitation of the study was the generalizability of GPA to retention and persistence. GPA and retention are two different outcomes so GPA is not generalizable to retention; however, this study does provide information about the academic performance of African American students that have been retained. Although GPA is one indicator that a student will be retained, several students in the sample reported that they had GPA's less than 2.0 and were still in attendance at their particular institution. A comparison between the students who weren't retained and those who were retained may provide more information about the study variables and their direct relationship to retention.

An additional limitation of the study is the mentoring measure. Because mentoring was measured using a cumulative scale of the frequency of meetings with various mentors, it is possible the scale failed to predict GPA because it did not detect any potential impact from frequent meetings with one mentor. Furthermore, the quantitative nature of the study doesn't account for the quality of the mentoring relationships, further indicating the need for quantitative and qualitative studies.

Conclusion

The dissertation study examined whether mentoring, cultural climate, and racial identity predicted GPA for African American college students. The study used a sample of African American college sophomores that took the MSL survey in 2012. The final sample included 403 students that were full-time students attending four-year colleges and universities. Furthermore, the sample only included students that attended their college the prior year and had not transferred. The results of the hierarchical regression analysis found that of the three predictor variables, cultural climate was the only one that significantly predicted GPA when controlling for age, parental educational attainment, and gender. This result suggests the importance of a welcoming cultural climate for the academic success of African American students. This finding may be more important for women and for students whose parents have earned a bachelors degree or less. Although GPA is an indicator of retention and persistence, this could not be measured directly in this study. However, the results suggest that a warm and welcoming cultural climate which implies few experiences of discrimination, increased sense of belonging, and opportunities to discuss culturally relevant and social justice issues with diverse peers positively impacts GPA for African American college students. Although not a

significant predictor of retention, the results of this study also suggests that the frequency of mentoring with diverse types of mentors is related to cultural climate and racial identity suggesting that this is also important for African American college student development. The research findings have implications for university programming which emphasize the importance of diversity and social justice, faculty and staff diversity training, and providing culturally competent services for African American students.

APPENDIX A

2012 MULTI-INSTITUTIONAL STUDY OF LEADERSHIP SURVEY

DISSERTATION ITEMS

1. Did you begin college at your current institution or elsewhere? (Choose One)

   1=started here

   2=Started elsewhere

2. How would you characterize your enrollment status? (Choose One)

   1=Full-time

   2=Less than full-time

3. What is your current class level? (Choose One)

   1=Freshman/First-year

   2=Sophomore

   3=Junior

   4=Senior (4th year and beyond)

   5=Graduate Student

   6=Unclassified

18. A mentor is defined as a person who intentionally assists your growth or connects you to opportunities for career or personal development.

    a) Since you started at your current college/university, have you been mentored by the following types of people (0=No, 1=Yes) (If No for ALL items, skip to #19):

       a. Faculty/Instructor

       b. Academic or Student Affairs Professional Staff (ex. student organization advisor, career counselor, Dean of Students, academic advisor, residence hall coordinator)

       c. Employer

   d. Community member (not your employer)
   e. Parent/Guardian
   f. Other Student

b) Since you started at your current college/university, how often have the following types of mentors assisted you in your growth or development? (0=Never, 1=Once, 2=Sometimes, 3=Often)
   a. Faculty/Instructor
   b. Academic or Student Affairs Professional Staff (ex. student organization advisor, career counselor, Dean of Students, academic advisor, residence hall coordinator)
   c. Employer
   d. Community member (not your employer)
   e. Parent/Guardian
   f. Other Student

c) When thinking of your most significant mentor at this college/university, what was this person's role?
   a. Faculty/Instructor
   b. Academic or Student Affairs Professional Staff (ex. student organization advisor, career counselor, Dean of Students, academic advisor, residence hall coordinator)
   c. Employer
   d. Community member (not your employer)
   e. Parent/Guardian

f. Other Student

d) When thinking of your most significant mentor at this college/university, what was this person's gender?

1=Female

2=Male

3=Transgender

e) When thinking of your most significant mentor at this college/university, what was this person's broad racial group membership?

1=White/Caucasian

2=Middle Eastern

3=African American/Black

4=Native American

5=Asian American/Pacific Islander

6=Latino/Hispanic

7=Multiracial

8=Unsure

9=Race/ethnicity not indicated above

19. During interactions with other students outside of class, how often have you done each of the following in an average school year? (Select one for each) (0=Never, 1=Sometimes, 2=Often, 3=Very Often)

a. Talked about different lifestyles/customs

b. Held discussions with students whose personal values were very different from your own

c. Discussed major social issues such as peace, human rights, and justice
d. Held discussions with students whose religious beliefs were very different from your own
e. Discussed your views about multiculturalism and diversity
f. Held discussions with students whose political opinions were very different from your own

29. Indicate your level of agreement with the following statements about your experience on your current campus (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree)
    a. I feel valued as a person at this school
    b. I feel accepted as a part of the campus community
    c. I have observed discriminatory words, behaviors or gestures directed at people like me
    d. I feel I belong on this campus
    e. I have encountered discrimination while attending this institution
    f. I feel there is a general atmosphere of prejudice among students
    g. Faculty here have discriminated against people like me
    h. Staff members have discriminated against people like me
30. What is your age? (Open Response)
31. What is your gender? (If 1 or 2, skip to question #32)

    1=Female

    2=Male

    3=Transgender

Please indicate which of the following best describe you?

1=Female to male

2=Male to female

3=Intersexed

4=Rather not say

34. Please indicate your broad racial group membership: (Mark all that apply)

1=White/Caucasian

2=Middle Eastern

3=African American/Black

4=American Indian/Alaska Native

5=Asian American/Asian

6=Latino/Hispanic

7=Multiracial

8=Race/ethnicity not included above

35. We are all members of different social groups or social categories. We would like to consider your BROAD racial group membership (ex. White, Middle Eastern, American Indian, African American/Black, Asian American/Pacific Islander, Latino/Hispanic, Multiracial) in responding to the following statements. There are no right or wrong answers to any of the statements; we are interested in your honest reactions and opinions. (1=Strongly Disagree, 2=Disagree, 3=Disagree Somewhat, 4=Neutral, 5=Agree Somewhat, 6=Agree, 7=Strongly Agree)

    a. I am a worthy member of my racial group

    b. I often regret that I belong to my racial group

c. Overall, my racial group is considered good by others

d. Overall, my race has very little to do with how I feel about myself

e. I feel I don't have much to offer to my racial group

f. In general, I'm glad to be a member of my racial group

g. Most people consider my racial group, on the average to be more ineffective than other groups

h. The racial group I belong to is an important reflection of who I am

i. I am a cooperative participant in the activities of my racial group

j. Overall, I often feel that my racial group is not worthwhile

k. In general, others respect my race

l. My race is unimportant tot my sense of what kind of person I am

m. I often feel I am a useless member of my racial group

n. I feel good about the racial group I belong to

o. In general, others think that my racial group is unworthy

p. In general, belonging to my racial group is an important part of my self image

38. What is your best estimate of your grades so far in college? (Assume 4.0=A)

(Choose One)

1=3.50-4.00

2=3.00-3.49

3=2.50-2.99

4=2.00-2.49

5=1.99 or less

6=No college GPA

39. What is the HIGHEST level of formal education obtained by any of your parent(s) or guardian(s)? (Choose one)

    1=Less than high school diploma or less than a GED

    2=High school diploma or a GED

    3=Some college

    4=Associates degree

    5=Bachelors degree

    6=Masters degree

    7=Doctorate or professional degree (ex. JD, MD, PhD)

    8=Don't know

APPENDIX B

2012 PARTICIPATING INSTITUTIONS

1. Alfred University
2. Boise State University
3. Boston College
4. Bowling Green State University
5. Brigham Young University
6. Hawaii
7. California Lutheran University
8. Central Michigan University
9. Clemson University
10. College of the Holy Cross
11. College of William & Mary
12. Colorado State University
13. Concordia College
14. Creighton University
15. DePaul University
16. Drake University
17. Drexel University
18. Elmhurst College
19. Elon University
20. Fairfield University
21. Fordham University (Rose Hill and Lincoln Center Campuses)
22. Georgetown University
23. Gonzaga University
24. Goshen College
25. Immaculata University
26. Indiana State University
27. Iona College
28. John Carroll University
29. John Jay College of Criminal Justice/CUNY
30. Kent State University
31. Kenyon College
32. Louisiana State University
33. Loyola Marymount University
34. Loyola University Chicago
35. Lynn University
36. Marian University
37. Marquette University
38. Massachusetts Institute of Technology (MIT)
39. McGill University
40. Meredith College
41. Metro State College Denver
42. Miami University of Ohio

43. Minnesota State University Moorhead
44. Northwestern
45. Oakland University
46. Ohio State University
47. Purdue University
48. Purdue University North Central
49. Ripon College
50. Roger Williams University
51. Saint Edwards University
52. Saint Joseph's University
53. Saint Louis University
54. Saint Xavier University
55. Seattle University
56. Shepherd University
57. Sinclair Community College
58. SUNY College at Brockport
59. SUNY Geneseo
60. Temple University
61. The Citadel, The Military College of South Carolina
62. Trinity Christian College
63. University of British Columbia
64. University of California, Irvine
65. University of Central Florida
66. University of Cincinnati - Main Campus
67. University of Connecticut
68. University of Dayton
69. University of Detroit Mercy
70. University of Illinois, Chicago
71. University of Illinois, Urbana-Champaign
72. University of North Carolina at Asheville
73. University of North Carolina at Chapel Hill
74. University of North Florida
75. University of Portland
76. University of Rochester
77. University of South Carolina
78. University of Texas, Arlington
79. University of Texas, Austin
80. University of Texas, El Paso
81. University of Toronto
82. University of West Florida
83. University of West Indies
84. University of Wisconsin at Milwaukee

85. University of Wisconsin at Oshkosh
86. University of Wisconsin at Stevens Point
87. Weber State University
88. Western Illinois University
89. Westminster College
90. Wheaton College
91. Winona State University
92. Xavier University

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